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ABSTRACT

The historical evolution of concern for education of gifted students is traced, along with the philosophical tides accompanying that evolution from the 1950s through the 1980s. It is argued that the public is alternatively supportive and antagonistic toward the gifted/talented. Periods of intense concern about their educational welfare are often followed with periods of apathy, antagonism, or lack of concern. The pre-Sputnik 1950s are contrasted with the post-Sputnik 1950s in terms of action on behalf of the gifted. The 1960s are viewed as a decade of turmoil during which large numbers of able students were encouraged to enroll in science programs early in the decade while attention turned to other pressures later, such as school integration, compensatory education, and Vietnam and the disenchantment of youth. The 1970s then saw renewed attention to the gifted, due to federal legislation targeting gifted students and the issuing of the Marland report which documented the deteriorated condition of gifted programs. The 1980s were marked by well-established programs for the gifted/talented in many American schools, educational provisions for underprivileged minorities, and less reliance upon Intelligence Quotients as measures of giftedness. The monograph closes with a "bill of rights" for the gifted. (JDD)

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The Gifted Movement Forward or on a Treadmill

Leadership Accessing Monograph

Education of Gifted and Talented Youth

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Teachers College, Columbia University

Indiana Department of Education
Office of Gifted and Talented Education
H. Dean Evans, Superintendent

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TABLE OF CONTENTS

Project Introduction 1

Introduction to Monograph 3

Biography 5

Abstract 7

Monograph 9

Summary 51

References 53

Introduction

In the school year 1985-86, Purdue University, in contract with the Indiana Department of Education, organized the Leadership Accessing Project, a program that provided state-of-the-art information and guidelines concerning the development of programs for gifted and talented youth of Indiana school corporations. Five nationally and internationally recognized specialists in gifted and talented education, Ms. June Cox, Dr. Merle Karnes, Dr. Bruce Shore, Dr. Barbara Clark, and Dr. Abraham Tannenbaum, gave symposium addresses at three sites in Indiana (Indianapolis, Columbus, and South Bend). They addressed key issues and problems in identification, programming, and curriculum development for the gifted.

In addition, the symposiasts submitted the following monographs for publication by the Indiana Department of Education. Each includes thought provoking advice concerning program development for gifted and talented youth.

The symposiasts were selected by a project advisory committee using the following criteria: (1) the nominees were known by the project leaders and/or advisory committee members to have a significant message for gifted and talented education, and (2) the nominees had never or rarely presented their ideas in Indiana.

Introduction to Monograph

Abraham Tannenbaum argues that the public is alternatively supportive and antagonistic toward the gifted and talented. We go through periods of intense concern about the educational welfare of the gifted, and we often follow with periods of apathy, antagonism, or lack of concern. However, the last decade has been one of strong interest and concern, and there has been substantial development of programs for the gifted in many states and even throughout the world. Tannenbaum traces the historical evolution of our concern for the gifted and the philosophical tides accompanying that evolution during the modern period from the 1950s to the present. He also documents the emerging focus on underprivileged minorities and the problems of searching for giftedness and talent among these youth.

Tannenbaum's historical overview of the tumultuous 1960s and the Kennedy years sets the stage for the significant new developments in the 1970s. Section 806 of Public Law 91-230 set in motion the research which led to the now well-known Marland Report. The Marland Report, issued in 1971, revealed that the gifted and talented were indeed an educationally underserved minority and prompted federal and state efforts to develop programs for the identification and educational nurturance of gifted and talented youth. The funds appropriated by the U.S. Congress, while always very small, nevertheless stimulated a great deal of developmental activity.

By the 1980s, program services for the gifted and talented were well established in many American schools. The educational provisions for Black and Hispanic youth also seem to be greatly improved and extended. Tannenbaum notes the decline in reliance upon the IQ as the primary measure of giftedness, but he warns that abandoning the IQ may leave us in "no man's land" with reference to our existing knowledge base derived from research in which IQ was the criterion of giftedness.

Tannenbaum closes with a "bill of rights" for the gifted. It asserts that the gifted have a right to an education program and services based on their special characteristics and needs.

Biography of Dr. Abraham Tannenbaum

Dr. Abraham Tannenbaum, Professor of Education and Psychology at Teachers College, New York, is the author of the highly acclaimed text, *Gifted Children: Psychological Education Perspectives*, published by Macmillan in 1983. Other publications, numbering over forty, have been included in a variety of professional journals and as chapters in renowned texts.

Dr. Tannenbaum received his B.A. in English Literature from Brooklyn College in 1946, his M.A. in Guidance and Educational Administration from Teachers College, Columbia University in 1948 and his Ph.D. in Social and Educational Psychology from Columbia University in 1960. In addition, he has taught elementary school, been the State Coordinator of Education for the Gifted in New York, and directed several federally funded projects dealing with emotionally disturbed youth and the education of leaders of gifted education.

Dr. Tannenbaum is a member of the Editorial Advisory Board of *Roeper Review*, The Research and Evaluation Panel of *Gifted Child Quarterly*, National Association for Gifted Children, and the professional organizations of the American Psychological Association and American Educational Research Association. Recent honors and awards have included the Eminent Scholar Award, Norfolk State University, winner of Hollingworth Award for research on the gifted INTEREL, Certificate of Recognition, Society for Gifted and Talented Children, and the Distinguished Scholar Award, from the National Association for Gifted Children.

Abstract

The gifted are a minority in our schools, but unlike other minorities, whose treatment is relatively consistent, the gifted are alternately indulged and neglected. Sometimes they are exploited, that is, given special attention not for their own sake but, rather, as a means of achieving political, social, and economic goals. The traditional peaks and valleys of public interest in the gifted seem to have leveled off in the last decade. Although we cannot duplicate the frenzied talent hunts of the post-Sputnik years, we have managed to pacify public fears of elitism that plagued the 1960's. What seems to be preventing a steep decline of attention are such strongly rooted developments as persistent lay advocacy on behalf of the gifted; the appearance of curriculum enrichment paradigms as alternatives to *ad hoc*, seat-of-the-pants planning of special education; the grass-roots efforts at state and local levels, even in the absence of federal leadership; and the emergence of a cadre of young professionals trained and dedicated to provide leadership in the field. However, there are also impediments preventing the field from reaching new heights of commitment and activity. They include nagging doubts about the need or efficacy of differentiated education; a persistent mood at school that being brilliant doesn't elevate and can, indeed, jeopardize a student's social status; the widespread allowance of fragmentary, add-on provisions to masquerade as comprehensive programs for the gifted; and the continuing popularity of candy-coated general curricula that generate instant gratification but little of substance or of lasting power. If there is hope for moving ahead toward unprecedented accomplishments in the field, much depends on accepting into our belief system the special rights of gifted children, based on what we know about their nature and the requisites for their nurture.

The Gifted Movement: Forward or on a Treadmill

C.S. Lewis is credited with having expressed the following truism: "Except for that which is eternal, everything else is eternally out of date." This applies to the writing of history, surely to the interpretation of current events, and most assuredly, to projections into the future. Each observer views human development from a private perspective different from everybody else's, at least in some respects. Even a single person's analysis is inconsistent over time, as new facts and wisdom are acquired, and what seems bright and clear today can become murky or illusory tomorrow. This essay could, therefore, be easily re-titled, "The World of the Gifted According to Tannenbaum," whose view of that world is probably idiosyncratic and certainly ever-changing.

Ambivalence Toward the Gifted

What does not seem to change, despite repeated observations, is the impression of public ambivalence toward giftedness. Just as all the world loves a lover, not a seducer, the human family esteems its brilliant minds and scorns its charlatans. The problem is that esteem for the great mind is too often mixed with scorn, and the reasons are not altogether clear. Of course, there is always the element of envy. Who, indeed, would not *like* to be one of the precious few smart enough to unlock some of nature's mysteries, or to invent ways of healing the body and prolonging life, or to create ideas and beauty that make life worth living? It *does* seem unfair that potential genius (like perfect health or boundless wealth) is not doled out in equal measure to all newborns; is it surprising, then, for "have-nots" to covet what the "haves" have, especially if it is precious beyond compare? Even a Walter Mitty-like simpleton dreams of greatness that is far beyond his reach because it is so often glamorous and a ticket to fame. But if there is truth to Preston Sturges' famous dictum that some people are *born* to greatness, some *achieve* greatness, and some have greatness *thrust* upon them, then the vast majority, who do not fall into *any* of these categories, are bound to begrudge the cherished position of those few who do.

Still, aside from jealousy, or perhaps because of it, there are other constraints on public enthusiasm for the gifted. One of them is the age-old adage that only a thin line separates genius from insanity, or that in the interest of some cosmic fair play, nature somehow balances off mental superiority with emotional or physical handicap. Another is the suspicion that nurturing mental superiority amounts to upsetting the *status quo*, since the gifted tend often to be iconoclastic, and it is easier to live with the familiar than to be prodded into the unknown by unconventional ideas, be they political, social, artistic, literary, or scientific. Still another is the belief that super-rational powers, which are so popularly associated with so many kinds of giftedness, are not all that critical in affecting the human condition, either because irrational impulses also figure greatly in individual accomplishment (according to Freud), or because no amount of effort by any one person, however brilliant s/he may be, can cause more than a ripple in the inexorable tides of history (according to Marx).

And finally, there is the tradition in America of treasuring the common man and avoiding inclinations toward elitism in any form. Among school psychologists, teachers, and administrators, this sentiment is represented by the statistical norm that defines "normalcy," a term they often use to denote a golden mean, or an ideal of sorts. Thus, for example, if the score most often obtained on an arithmetic test administered to a nationwide sample of fifth graders is 32 out of a possible 56, then *all* able-minded fifth graders are expected to earn that score. Those failing to measure up qualify for every possible tutorial and remedial intervention as some kind of democratic or humanitarian birthright. On the other hand, whoever exceeds the norm, even with ease, is not a candidate for special help to achieve a personal best, because that would amount to gilding the lily. Indeed, such a student may feel pressure to perform as close to the norm as possible so as not to appear uncommon among the celebrated commoners.

This procrustean approach to nurturing human potential cannot help but compromise the commitment of school and society to help young talent flourish fully. Therefore, in order to act on that commitment unequivocally, educators have to abandon their "norm-as-ideal" principles and adopt instead the doctrine that every child's mind deserves to be stretched to the limits of its capacity, or better still, up to the point where further stretching would be counterproductive psychologically or physically. In other words, education has to become individualized according to every child's individuality, rather than "normalized" in conformance with an age group's central tendencies.

Waxes and Wanes of Public Concern

Some observers (Gardner, 1961; Tannenbaum, 1972) point out that gifted children are not targets of public ambivalence, but, also, bounce up and down on educators' priority lists for special attention. In fact, the cyclical nature of interest in the gifted is probably unique in American education. No other special group of children has been alternately embraced and repelled with so much vigor by professionals and laypersons alike. What this apparent faddism means and why it has recurred so regularly can only be a matter of speculation. Gardner saw signs of public dilemma rather than fickleness when he commented that "the critical lines of tension in our society are between *emphasis on individual performance and restraints on individual performance*" (Gardner, 1961, p. 33, Gardner's italics). Such conflict would arise logically from a failure to reconcile our commitments to excellence and equality in public education. Fostering excellence means recognizing the right of gifted children to realize their potential, but it also suggests something uncomfortably close to encouraging elitism if the most able are privy to educational experiences that are denied all other children.

On the other hand, promoting egalitarianism will guarantee increased attention to children from lower-status environments who are failing at school. But as we concentrate more exclusively on raising the performance levels of these minorities, there is danger of discriminating against the minority of gifted students by denying their right to be challenged adequately on grounds that they are advantaged. Perhaps because we cannot live exclusively with excellence or with egalitarianism for any length of time and tend to counterpose rather than to reconcile them, we seem fated to drift from one to the other like the fabled Flying Dutchman who was condemned to a lifetime at sea with only periodic visits ashore.

The most recent giant swings between devotion to excellence and egalitarianism in America society occurred between the 1950s and the 1970s. Because of these fluctuations, the five years following the launching of *Sputnik* in 1957 and the last half-decade of the 1970s may be viewed as twin peak periods of interest in gifted children. Separating the peaks was a deep valley of neglect in which the public fixed its attention more eagerly on the low-functioning, poorly motivated, and socially handicapped in our schools. It was not simply a case of bemoaning the plight of able and then disadvantaged learners, with each population taking turns as the pitied underdog or the victim of unfair play. Instead of *transferring* the same sentiments from one undereducated group to another, the nation found itself transforming its mood from intense anxiety to equally profound indignation — anxiety lest our protective shield of brainpower become weaker, rendering us vulnerable to challenge from without, followed by indignation over social injustice in the land, which could tear us apart from within. In the late 1960s, we began to experience a revival of earlier sensitivities to the needs of the gifted. Judging from these fluctuations in national temperament, it seems as if we have not yet succeeded in paying equal attention *simultaneously* to our most and least successful achievers at school.

Modern Trends: The Pre-Sputnik 1950s

From the current perspective, the 1950s are viewed as sedate, conservative years, at least in contrast to the convulsive 1960s. But this kind of hindsight is fairly myopic. While it is true that America was spared too much internal dissension, except for McCarthyism and some grumbling about our involvement in Korea, still it was the age of cold warfare at its worst, and its threat to the psyche seemed lethal. Two superpowers, determined to undo each other's political systems, possessed the ultimate weapon of destruction, and each feared that the other would use it as a deterrent if it imagined itself about to be attacked.

Unlocking secrets of the atom to produce the bomb represented a scientific, as well as a military breakthrough, and increased the dependency of armed power on the innovativeness of the scientist. Americans had grown confident that our country's leadership in science and technology was unchallengeable. We expected ourselves always to be the first in creating new gadgetry to make life and death easier, be it through sophisticated home appliances, computer systems, communications equipment, or explosives with the power of megations of TNT. Imagine the shock, then, when this illusion was shattered with the orbiting of *Sputnik* by none other than our archenemy in the midst of a Cold War that at any moment could turn hotter than any conflict in history. *Sputnik* was not just a demoralizing technological feat; it had potential military applications, too. Suddenly, the prestige and survival of a nation were jeopardized because the enemy's greatest minds of the day had outperformed ours, and the Russians capitalized on this coup by broadcasting to every nation on earth its success in reducing America to a second-class power at long last.

Although the shock of *Sputnik* in 1957 triggered unprecedented action on behalf of the gifted, educators had already expressed their lament over public indifference to these children much earlier in that decade. But most of the attention was confined to regional and national surveys and public expressions of sentiment rather than the initiation of new enrichment programs. In 1950, the Educational Policies Commission decried the schools' neglect of mentally superior children and the resulting decline of personnel resources in the sciences, arts, and professions. A year later, the Ohio Commission on Children and Youth revealed only two percent of the schools in that state as having special classes for the gifted and a mere nine percent as reporting any kind of enrichment in the regular classroom.

Critism of the elementary and high schools eventually spread to the academic community. In 1953, a historian (Bestor) published a sensational indictment of public education for practicing what he considered its special brand of fraudulence on America's children. He charged that schools were not governed by learned educators, but rather, by know-nothing "educationists," a term he used in referring to teachers, administrators, and those responsible for training them on college campuses. To his way of thinking, it was tragically ironic that "educationists" should exert nearly total influence on the content of curricula while caring so little about the world of ideas. How could anyone presume to dictate what should be taught at school if s/he is not immersed personally in any scholarly discipline? Because of what he regarded as a misplacement of power in the hands of educationists, Bestor was convinced that schools provided meager intellectual nourishment or inspiration, especially for the gifted, who often marked time in their studies until graduation released them from boredom.

Bestor was not alone in sounding the alarm. Lynd (1953) and Koerner (1963) concurred that education in our schools was a sham perpetrated by self-styled professionals who possessed little knowledge and imparted even less to their pupils. Particularly blameworthy were teacher-training faculties in colleges that emphasized easy "how-to-do-it" courses in pedagogy, yet minimized the importance of substantive disciplines in the liberal and fine arts and sciences. Whatever the merits and faults of these criticisms, it is important to remember that they aroused attention throughout the country, touching off animated debates between detractors and defenders of the schools and, most of all, initiating pressures for reform that climaxed soon after *Sputnik*.

To some extent, the eagerness among educators to increase the nation's talent supply was probably influenced by politicians and economists who worried about our diminishing reservoir of high-level personnel in science and technology before *Sputnik* dramatized the problem. In a lengthy report prepared by the director of the Commission on Human Resources and Advanced Training (Wolfle, 1954), it was asserted that the United States had failed to prepare enough men and women in the natural sciences, health fields, teaching, and engineering. Only six of ten in the top five percent and only half of the top 25 percent of high school graduates went on to earn college diplomas. At the more

advanced levels, a mere three percent of those capable of earning Ph.D.'s actually did so. What made matters worse were expectations that the shortages would become even more acute in the late 1950s unless the schools succeeded in encouraging gifted students to continue on to advanced studies. These concerns were later echoed by the chairman of the U.S. Atomic Energy Commission when he warned the nation that its public schools were failing to maintain educational standards, especially for gifted students, thereby causing dangerous shortages of scientists and engineers and other technically trained individuals (*The New York Times*, November 27, 1955). He also charged that in the first half-decade of the 1950s the number of college graduates preparing to be high school teachers in science had dropped by 53 percent.

Statistics confirmed the existence of personal shortages in some key professions (*The New York Times*, May 1, 1955). It was estimated that in 1954 American industry needed 30,000 engineers, but that colleges and universities had graduated only 18,000. A mere 200 physicists earned diplomas in that year, and half chose not to enter the field of physics. Serious shortages existed also in industry, medicine, nursing, pharmacology, clinical psychology, and social work, among other important fields. Again, the cause of this alarming situation was attributed to the schools' commitment to deal with mediocrity rather than with superiority. Teachers were allegedly geared to work with average or even below average students, with the result that the ablest were often disregarded. Many dropped out of school before graduation or refused to go on to college after four years of high school. The consequences of neglecting the brightest students were echoed clearly at the Ninety-third Annual Convention of the National Education Association (*The New York Times*, July 6, 1955). A committee report pointed out that each year 200,000 outstanding high school graduates did not enroll in college and that an equal number dropped out of college before graduation. The report went on to warn that an annual loss of 400,000 highly trained men and women could force the United Sates to lose its superiority to the Soviet Union in the realm of technology.

To partially offset laments and surveys dramatizing the failure to educate gifted children, was evidence of some scholarly activity in the early part of the 1950s. Few people could forecast the impact of Guilford's paper, "Creativity," or subsequent research pertaining to the nature and measurement of productive thinking when it was first published in 1950. It encouraged psychometrists to abandon the assumption that tests of general intelligence, such as those developed in the early part of the century by Terman, could be used to locate the pool of children out of which virtually all the gifted would probably emerge. Instead, Guilford's model brought attention to multiple aptitudes, including divergent production or "creativity" as it is sometimes called. His ideas about creativity and its measurement were later adapted by Getzels and Jackson (1958) in their comparison of "high-creative, low-IQ" and "high-IQ, low-creative" students at the University of Chicago Campus High School. This study had a stunning influence on educational researchers because it announced a breakthrough in the use of so-called "creativity" measures to identify a talent resource that is supposedly overlooked by tests of general intelligence.

The question of whether instruments for assessing creativity can locate otherwise undiscoverable talent has never been fully settled (Crockenberg, 1972), but protagonists for the use of such tests have inspired widespread enthusiasm for them in identifying gifted children ever since. The rush to publish on the subject eventually picked up so much momentum that from June 1965 to June 1966 there were as many as 1,250 bibliographic entries on creativity for all the preceding five years, for all the ten years before that, and for all the years from 1850 to 1950. Thus, we see that in the early 1950s a foundation of sorts was laid for later research and advocacy on behalf of gifted children.

In addition to conducting basic research that generated new hypotheses about intellectual functioning, behavioral scientists and educators in the pre-*Sputnik* 1950s were already demonstrating how university resources could further the cause of special education for the gifted. For example, the Talented Youth Project was established at Teachers College, Columbia University in 1954, three years *before Sputnik*. In its twelve years of existence, it produced some landmark applied research on ability grouping (Goldberg, Passow, Justman, & Hoge, 1966), underachievement (Ralph et al., 1966), and comparative evaluations of several enrichment programs for the mathematically gifted (Goldberg, Passow, Camm, & Neil, 1966). Also, A. Harry Passow, director of the project, collaborated with his staff to write a problems-and-issues statement (Passow, Goldberg, Tannenbaum, & French, 1955) that turned out to be not only time*ly* for its day, but, surprisingly, time*less*, or at least sensible and applicable more than thirty years later! Perhaps most important of all, the Talented Youth Project assisted schools and school systems in different parts of the country to develop, implement, and evaluate their own programs for the gifted.

But despite the work of specialists on the gifted and the portents and premonitions concerning the Soviet Union's strides in building its talent reservoir, there was no serious action in America's

schools until *Sputnik* was launched in 1957. At that time, the rhetoric started to become more strident and the research more abundant, and they either produced or accompanied radical changes in public education. The country was convinced that the Russians had slipped ahead of it in space technology because of its insufficient manpower to advance the sciences. Predictably, the schools were singled out as scapegoats, much as the Pearl Harbor military had been when America was caught napping at the time of another kind of surprise enemy attack. Here was an opportunity to denigrate public education as Bestor and Lynd had done only a few years earlier.

Prominent among the critics was Admiral Hyman Rickover, famous as the "father" of the atomic submarine and long an advocate of programs that would identify and educate an intellectual elite for leadership in our country. Rickover saw a deadly link between scientific advancement and military strength and warned that the Soviets were moving ahead menacingly on both fronts. Ennobling excellence was no longer just a means of improving the quality of life in a free society; it had also become a key to the survival of the free world. We were living through a period of national peril, and the only way to meet the Soviet threat, according to Rickover, was to stockpile brains in the sciences as rapidly as possible (Rickover, 1959). Before it could be accomplished, however, we had to overcome our traditional guilt about singling out the gifted for special opportunities at school. Rickover observed that "anti-intellectualism has long been our besetting sin. With us, hostility to superior intelligence masquerades as belief in the equality of man and puts forth the false claim that it is undemocratic to recognize and nurture superior intelligence" (Rickover, 1960, p. 30). America could no longer indulge in such a false sense of egalitarianism. Its task was to earmark superior students for an enriched education and to dedicate their abilities to the defense of their country.

Beyond the military advantages of producing knowledge in technology, there was also the prestige factor that Rickover saw clearly. "The biggest mistake we can make," he wrote, "is to look upon the Russian challenge as purely military. On the contrary, it affects every aspect of our way of life, even those we consider private . . . Whatever the formal relationships between Russia and the free world may be at any given time, the technological race will not cease. I do not believe the Russians will *ever* stop trying to surpass us" (1960, p. 130). If anything, this forecast has proved to be an understatement, as evidenced by the ideological competition in every possible arena, including even the Olympics, that continues to grow in intensity.

Rickover lacked the formal credentials to qualify as an educator or educationist. This made his condemnation of the schools for failing to produce sufficient numbers of scientists unacceptable to many professionals in the field. It was difficult for them to concede that anyone who was not a "member of the lodge" should be taken seriously in such matters, particularly if his ideas about existing school programs were unflattering. Nevertheless, he reached a large and often sympathetic audience through his jeremiads even though he was expressing views about subjects outside his specialized field.

In retrospect, Rickover's thoughts are of historic importance because they were expressed by a man whose own career symbolized the marriage between science and the military. His criticisms of public schools were basically motivated by concerns about our national security. This coupling of education and defense became public policy through a significantly titled piece of legislation, the National Defense Education Act of 1958, which revealed a new and far more critical role for the schools than they had ever played before. While remaining obliged to produce an enlightened people capable of living together responsibly in a democratic system of government, schools were also in the business of protecting us from being buried ideologically, and perhaps militarily, too, by a fearsome foreign power. The act provided funds to strengthen six components of American education, one of which was the identification of gifted children. In addition, it set aside money to help schools mount programs in science, mathematics, and foreign languages, which showed where the emphasis in high-level education was to be placed.

Meanwhile, the nation kept careful watch of scientific developments in the Soviet Union. Also monitored were the rates at which Soviet education was producing new scientists and the kind of training they received in the process. Invariably, invidious comparisons were made between the enemy's system and ours. One report claimed that, before graduating from a Russian high school, a student had to have completed five years of physics, biology, and a foreign language, four years of chemistry, one year of astronomy, and as many as ten years of mathematics (*Soviet Commitment to Education*, 1959). Our own graduates were woefully undereducated by comparison. Even worse, the young people in American colleges earning science degrees and committing their talents to defense-related professions did not compare in number with their counterparts in the Soviet Union.

It was essential to build up our supply of high-level human resources quickly or else risk seeing

the national emergency deteriorate into a national catastrophe. In time, school officials began to acknowledge that something was wrong with the public education and that there was much overhauling to be done. What moved them out of their complacency and made them more reform-minded were probably the mounting exposes of malpractice in the schools, capped by *Sputnik* and its ominous implications. Indeed, the reaction to *Sputnik* might not have been so swift and strong if the critics' cries for change in our schools had not had a cumulative effect.

The 1950s: Post Sputnik

When the educational community finally took action on behalf of the gifted, it did so with alacrity. Enormous public and private funds became available to assist in the pursuit of excellence, primarily in the fields of science and technology. Academic coursework was telescoped and stiffened to test the brainpower of the gifted. Courses that had been offered only at the college level began to find their way into special enrichment programs in high school and eventually in elementary school. Even the self-contained classroom, which had been a tradition in elementary education, gave way to limited departmental instruction in a pilot project called the Dual Progress Plan. Under this experiment, children were grouped as before with agemates of varied ability under a single teacher only in the social studies and language arts. These content areas were labeled "cultural imperatives," since all people require them for good citizenship and meaningful day-to-day communication with each other. However, for the "cultural electives," such as the fine arts and sciences, which are more important for careers than for survival, children were grouped according to ability, regardless of age, in a departmental program conducted by specialist instructors.

The heterogeneous, self-contained classroom was rationalized for the cultural imperatives on grounds that it reflects the heterogeneity of the society where these skills are needed in daily living. Not so for the cultural electives, which emphasize learning for the sake of specialization. Their best educational environments, according to the experimenters, were narrow-range classes taught by people qualified in specific subject matter areas, an arrangement many thought was particularly advantageous to the gifted.

The Dual Progress Plan never made it into the bloodstream of American education, but it is an example of the extent to which some educators were willing to part with tradition in servicing the gifted. It was by no means the only bit of imagination and daring that flashed into life briefly and passed on with hardly a trace. Attempts were made to introduce foreign language in the elementary schools, but that, too, did not last long after its auspicious beginning. Also making short-lived appearances were courses with such attractive titles as "The Mathematics of Science," "Opera Production," "Seminar in the Humanities," "Integration of the Arts," "World Affairs," "Structural Linguistics," and "Critical Thinking." Special efforts were even made to locate and nurture giftedness among the socially disadvantaged, most notably through the PS 43 Project in New York City, which later became the widely hearalded, but eventually ill-fated, Higher Horizons Program. Interest spread also to school systems in rural areas and to colleges and universities where the gifted were provided with enrichment experiences never before extended to them.

There is no way of knowing precisely what percentage of our schools offered something special to the gifted in the years immediately after *Sputnik*. One reason is that most of the crash programs were never taken seriously enough by their sponsoring institutions to last long. But there were prominent exceptions that started out as enrichment experiences for the gifted and eventually changed the curriculum for all children. Much of what is taught today in mathematics and sciences, for example, is a legacy of post-*Sputnik* designs in educating the gifted. Similar influences can be felt in current secondary school programs that are comprehensive enough to accommodate human diversity without short-changing the gifted.

James B. Conant, a renowned chemist and public servant and a president of Harvard University, codified the sentiment of the post-*Sputnik* 1950s in a report entitled *The American High School Today* (1959). He offered a broad twenty-one-step plan for changing secondary education with special emphasis on core courses that were challenging in content and required of all students regardless of their career plans. His proposal also took special note of the academically gifted (defined as the upper 15 percent) and the highly gifted (defined as the upper three percent), and the tougher standards he suggested for them were far more acceptable to school officials than were those that had been recommended by Bestor, Lynd, and others. Perhaps the combination of the report's timeliness and Conant's personal credibility in the public schools enabled his message to get through and retain its influence to this day, while the earlier critics' ideas were taken less seriously.

In addition to the outpouring of special enrichment activities initiated in the schools during the late 1950s and early 1960s, there was massive research activity dealing with the characteristics and education of gifted children. Investigations in vogue at the time focused primarily on such topics as the relative effectiveness of different administrative designs, such as ability grouping, enrichment

in regular classes, and acceleration; the social status of the gifted at school and its effect on their motivation to learn; the causes and treatment of scholastic underachievement among children with high potential; achievement motivation and other nonintellective factors in high-level learning; and the psychosocial correlates of divergent thinking processes. Professional journals were deluged with research reports and with exhortations to do something special for the gifted. So rapid was the buildup of literature in the field that one writer (French, 1959) claimed there were more articles published in the three-year period from 1956 to 1959 than in the previous 30 years.

Perhaps the most vivid recollection of the post-*Sputnik* years is that of the Great Talent Hunt. It was a time when every possible effort was exerted at federal, state, and local levels to identify gifted children and to educate them to the limits of their potential. So intense was the search for young brains, their nurture, and utilization that a parallel can be drawn between the way in which we dealt in the 1950s with high-level *human* resources and our approach to precious *natural* resources in the 1980s:

Human Resources (1950s)	Natural Resources (1980s)
Wherever there were possibilities of their existence, the potentially gifted were spotted by alert parents and teachers, while schools conducted elaborate testing programs to locate as many of them as could be identified.	Wherever there are possibilities of their existence, raw materials are extracted from the earth and deep seas or trapped in the atmosphere and then analyzed for their value.
Young children with high potential were then placed in enrichment programs to prepare them for professional careers.	Raw materials are then refined and processed in order to be converted from their naturally crude states to usable forms.
The gifted were counseled to major in fields of specialization where critical shortages existed, particularly in defense-related industries and professions.	The materials are categorized for various kinds of utilization and receive their final preparations and refinements to fulfill their special functions.
The gifted were graduated, certified, or licensed with honors and then offered by their faculty sponsors for employment in jobs commensurate with their superior abilities and with the most sensitive needs of the nation.	The finished products are packaged and sold to the highest bidder or available customer.

Comparing the treatment of human and material resources is a way of illustrating several impressions of the Great Talent Hunt as it was conductd in the late 1950s. Just as we grasp at new energy sources today out of fear that we cannot continue to exist without them, so did we cast about frantically for signs of giftedness in the schools at that time. And just as we deal with natural resources in an objective, efficient manner, so did our talent hunt show signs of detachment and impersonality, as if gifted people's usefulness to society mattered more than their individualities and sensibilities as human beings.

High scholastic standards and standing, academic advancement, studiousness, and career mindedness were conspicuous themes in our schools when the bandwagon for the gifted was rolling. It became virtually unthinkable for a gifted child to bypass the tougher courses in favor of the less demanding ones. It certainly was no time for youths to do their own thing or to enjoy the privilege of doing nothing. Instead they were brought up in a period of total talent mobilization, requiring the most able-minded to fulfill their potentials and to submit their developed abilities for service to the nation.

The 1960s: A Decade of Turmoil

The 1960s opened with John F. Kennedy's election to the presidency amid promises and dreams of a modern utopia. There was excitement in the air as the nation prepared itself to sweep away the stodginess of the 1950s and create a new age of excellence. Kennedy was particularly attractive to young people who saw in him (and his family) a refreshing blend of youthfulness, vitality, intelligence, idealism, and beauty. His earliest messages as President of the United States made it clear that brains and loyalty to the flag were among our most precious assets. He announced boldly his intention to put a man on the moon by 1970, a clear sign that we were accepting Russia's challenge for supremacy in space exploration and that the most brilliant scientists would be called upon to make such a feat feasible. This meant encouraging the largest possible number of able students to enroll in science programs that offered them the best possible specialized education. For who else but the gifted could yield forth from their ranks a team of scientists qualified to honor the president's commitment?

There were other hints of meritocracy in the air. Kennedy gathered around him some of the most precocious men (though few women) of his generation to advise him on governmental matters. Known then as the "Whiz Kids," some had earned their reputations as scholars at leading universities and others as promising idea men in industry. All of them projected an image of braininess with a zest for unraveling the chief executive's knottiest problems. They were gifted children grown up and enjoying the glamor of fame and power rather than living in relative obscurity as so many other gifted people have to do even in their most productive years. At last, able children had their own celebrity role models to emulate, much as budding atheltes and entertainers have theirs. The nation's leaders were demonstrating by their own example that it pays to be smart at school if you want to get ahead in life. It certainly made good economic sense because the best paying jobs were going to the best educated.

It would, of course, be naive to suggest that we had reached a point in history when brilliant students were taking their place alongside the sports stars as heroes on campus. Far from it. Research by Coleman (1962) and Tannenbaum (1962) demonstrated that acclaim among peers was achieved far more easily on the athletic field than on the honor roll. Still, the Kennedy years were making good on promises of social and economic rewards for those willing to cultivate their superior scholastic abilities despite the lack of enthusiastic cheering from schoolmates.

The bids were high for brains in the early 1960s, but there was a string attached. President Kennedy himself expressed it best in his immortal admonition to his countrymen: "Ask not what your country can do for you — ask what you can do for your country." It was a call for unselfish accomplishment, to dedicate the work of our citizens to the greater glory of the nation. Those with higher abilities had more to contribute and were, therefore, under pressure not to bury their talents or even to indulge in creative productivity that was impractical. The feeling during the Cold War period was that the scientist could better serve the nation than could the poet.

Judging from the career plans of gifted children in the late 1950s and early 1960s, they evidently believd that the nation was worth serving. By far, the largest number of students with high tested intelligence majored in the sciences, and many of them aspired to enter fields of technology that could somehow help the defense effort. Employment opportunities in these industries and professions were reinforced by the glamorizing of science as humanity's most exciting modern frontier. Yet, the flurry of activity on behalf of the gifted left some unfinished business to haunt us ever since. Even the threat of *Sputnik* and the indulgence of excellence during the Kennedy era were not enough to guarantee that the needs of the gifted would be cared for perpetually at school. Instead, enrichment was considered a curricular ornament to be detached and discarded when the cost of upkeep became prohibitive. Then, too, the fervor with which guidance counselors ushered gifted youths into science programs backfired to some degree as large numbers of these students switched their academic majors by the time they reached their sophomore year in college (Watley, 1968), and many who did stay on to pursue careers mapped out for them became victims of the shaky fortunes of the aerospace industry.

On the other hand, little more than lip service was paid to the needs of the special breed of students, not gifted academically, but possessing exceptional promise in the arts, mechanics, and social leadership. Also, whatever work was done in defining and measuring divergent thought processes remained in the research laboratory; only a few people attempted to develop ways of cultivating

this kind of ability. Finally, the national talent hunt failed to penetrate the socially disadvantaged minorities whose school achievement records were well below the national norm and whose children with high potential were much harder to locate because their environments provided too little of the requisite encouragement and opportunity to fulfill whatever promise they might have shown under other circumstances. A notable exception to the general neglect of talent among the underprivileged was the aforementioned PS 43 Project in New York City, which was then modified to become the Higher Horizons Program (Landers, 1963). But these efforts were shortlived, coming to an end when a subsequent evaluation revealed no special accomplishments of the program, perhaps due to an underestimate of costs, personnel, curriculum planning, and just plain hard work needed to duplicate on a much larger scale the earlier successes of PS 43 (Wrightstone, 1964).

The gifted bandwagon of the late 1950s and early 1960s slowed down considerably, but it never came to a complete halt. The big-city programs in Los Angeles, Cleveland, and New York City, among other urban centers, had been started long before *Sputnik* and survived the changes in national priority. There is even evidence of the initiation of new efforts around the mid-1960s, such as the Georgia Governor's Honors Program in 1964 and the Louisiana Governor's Program in 1965, both of which were set in residential facilities and possibly inspired by the highly successful Governor's School in North Carolina. A few private corporations providing enrichment opportunities for the gifted also showed lasting power, a notable example being the Gifted Child Society of New Jersey, which conducts educational programs on Saturdays and during the summer months. Meanwhile, various advocacy groups at the national level, such as the American Association for Gifted Children and the National Association for Gifted Children, as well as local groups scattered throughout the states, continued to express their interests without letup during the lean years. But, for the most part, the vast majority of programmatic innovations triggered by *Sputnik* and sustained in the Kennedy era proved trendy rather than long-lived despite their early promise.

Perhaps the decline of interest in the gifted would have been inevitable, considering how conflicted the public often feels about such children. Intimations of meritocracy can never fit easily into a democratic frame of reference. There will always be egalitarian-minded people who consider it necessary to withhold special opportunities that might aid the ablest to get far ahead of the pack. These critics often argue that bright children are advantaged and can fend for themselves, so why invest in them? The rationalization is a familiar one because it has circulated widely for a long time and is compatible with the popular notion of idealizing the norm, encouraging the deficient to reach as close to it as possible, and either ignoring or frowning on the efforts of the super-proficient to move far beyond it. There has certainly been enough ambivalence about doing something special for the gifted to prevent campaigns on their behalf from sustaining their momentum indefinitely.

But it would be a mistake to assume that America merely grew tired of the gifted in the mid-1960s because its interest in them had been less than wholehearted all along. While attention might have declined, the fact is there were pressures forcing our preoccupation away from the gifted toward realities that seemed to be far more relevant to the events of those days. Among the most prominent were the civil rights movement, school integration, and compensatory education; Vietnam and the disenchantment of youth; and growing distrust of scientific discovery.

Focus on Underprivileged Minorities

The 1954 Supreme Court decision to desegregate public schools set off an inexorable movement toward updating the Constitution and the Bill of Rights. Once again, education became the linchpin of a national priority, this time for social justice, as it had formerly been for the Great Talent Hunt. Separatism and equality were declared an impossible combination and, therefore, unconstitutional. In 1955, Martin Luther King, Jr., began to emerge as a leader in the struggle for racial integration in all community institutions, including employment, housing, and transportation, as well as the schools, when he led his historic boycott of buses in Montgomery, Alabama, to protest the treatment of black passengers, an event that led to similar action throughout the country. His efforts placed the classroom in perspective as one of many battlegrounds in America's all-out campaign to raise the status of its underclasses. Educators learned quickly that pressures were mounting everywhere — not just in the schools — to take decisive action to eliminate even the subtle forms of discrimination that had hardly been noticeable over the years. It was the wave of those times and could not be ignored.

What became quickly obvious to everyone concerned was the fact that allowing blacks to sit with whites in the same classroom was a necessary, but by no means sufficient, step in the direction of

equality. The two groups could not possibly compete with each other on a comparable footing under identical learning conditions; the disparity in readiness, motivation, and support systems at home were simply too great. The schools could not hope to meet their obligations to disadvantaged students without directing toward them an enormous amount of effort, some of it necessarily diverted from more advantaged populations, including the gifted. The cost for such an investment was staggering when judged by the standards of those times, but the investment was a good one according to Lyndon B. Johnson, who succeeded the fallen President Kennedy in the White House. Almost any monetary outlay was worthwhile since the new president's Great Society program derived from the idealistic expectation that solutions to the nation's social problems would be purchasable as long as there was general willingness to pay the price in cash.

In retrospect, Johnson's idealism may seem more like romantic naivete, but the money was enough of a blandishment for some school administrators, college professors, educational researchers, and curriculum specialists to become passionately committed to the education of the disadvantaged. A great many other professionals dedicated their talents similarly, not for the sake of monetary gain or for the thrill of riding a new bandwagon, but out of moral conviction that racism and any form of inequality have a cancerous effect on the life of a democracy.

Whatever their motives, pragmatic or lofty, educators and social and behavioral scientists placed the cause of disadvantaged children at the top of their priority list, far ahead of the gifted. There was a new sense of urgency to avert internal unrest by using every possible means to close the gap between the "haves" and the "have-nots," and it was generally acknowledged that the schools would figure prominently in the process. Attention was thus shifted away from the need to keep our talent reservoir well filled for the sake of national defense and world prestige. We felt that somehow these problems could take care of themselves unattended whereas failure at school among the disadvantaged could not. In short, we were more concerned about bolstering freedom and equality within our borders than in playing the lead on the world stage, despite the unabated pressures of cold warfare that brought confrontations between East and West in Europe, Southeast Asia, and the Middle East.

In addition to diverting interest away from the gifted, the advocacy movement for the socially disadvantaged actually contested at least two features of special programs for the most able: (1) the use of IQ tests and other conventional measures of mentality as a means of determining who deserves to be called gifted and (2) grouping children in special classes for the gifted on the basis of their performance on these kinds of assessments.

The IQ test, a major instrument for determining academic potential ever since Terman initiated his monumental studies of genius in the early part of the century, came under heavy attack for being biased against some racial minorities and the socioeconomically depressed. It was charged that the problem-solving tasks — mostly verbal — favor the experiential backgrounds of children from higher-status environments. Consequently, these students obtain higher scores, thus creating the delusion that they are basically more intelligent and perhaps even born with superior intellect. As a result of such charges, some urban centers with large racial minorities, notably New York and Los Angeles, discontinued the use of IQ tests, ignoring the arguments of some commentators (Lorge, 1953; Tannenbaum, 1965) that the instruments per se are not prejudiced. Instead, they merely reflect fairly accurately the biases of the society by assessing the potentials of children growing up in a system that fosters human inequality; therefore, eliminating the tests amounts to removing a symptom rather than the cause and will accomplish nothing if intergroup prejudice in the society remains uncorrected.

Nevertheless, there was strong opposition to the use of mental measures, not only in identifying able children, but for any purpose relating to human assessment. The push toward greater egalitarianism aggravated a mild distrust of intelligence testing that had always existed in the country. Many suspected that it is vaguely antidemocratic to declare, on the basis of a test score, that a child is fated to become an achiever or a failure, economically comfortable or uncomfortable, and a high-or low-status person, even if such forecasts allowed broad limits of error. Such an idea did not square with our traditional faith that in this country people are given the freedom and opportunity to make of themselves what they will. This residual aversion to testing intelligence on the grounds that it predestines inequality among *individuals* was compounded by charges that the measures discriminate against racial and socioeconomic *groups* as well. It was enough to threaten the use of instruments traditionally used for identifying gifted children.

Since racial minorities, such as Hispanics, Blacks, Chicanos, and Native Americans, traditionally performed less well at school than did white majorities, it was logical to suspect ability grouping for the gifted as de facto racial segregation. Critics argued that schools were practicing blatant

favoritism by creating special classes for children who were rated superior on conventional measures of intellect, and, also, by offering the chosen few a kind of enrichment in their curriculum that was denied everyone else. The objections were not necessarily against special ability grouping per se for the gifted, or even the enriched educational experience reserved for them because of their ability. What created the furor was the practice of denying enough children from disadvantaged subpopulations their rightful access to these classes. There was an overwhelming sentiment favoring the idea that high potential is distributed equitably among all races, privileged and underprivileged, but that life's circumstance in some groups is oppressive enough to cast a shadow over their innate competencies. And, since nobody had ever devised a way in which to locate and nurture giftedness that was thus hidden from view, it was impossible to integrate special classes for the gifted with balanced racial quotas.

Some localities attempted to solve the problem by making standards of admission to special enrichment classes flexible enough to accommodate minority groups. Other communities eliminated scholastic aptitude testing altogether. The enriched curricula then had to be modified to bring meaningful education to newly devised classes of gifted children. However, even these adjustments were not enough to keep ability grouping from losing its popularity as a vehicle for enrichment. Eventually, a celebrated decision by U.S. Appeals Court Judge Skelly Wright (U.S. District Court for the District of Columbia, Civil Action #82-66) on June 19, 1967, ruled against ability grouping in the Washington, D.C., schools as a form of racial segregation. His reason may be summarized in an excerpt from his lengthy decision:

> The aptitude tests used to assign children to the various tracks are standardized primarily on white middle-class children. Since these tests do not relate to the Negro and disadvantaged child, track assignment based on such tests relegates Negro and disadvantaged children to the lower tracks from which, because of the reduced curricula and the absence of adequate remedial and compensatory education, as well as continued inappropriate testing, the chance of escape is remote.

Thus, we see that American education was not able to reconcile its interest in the gifted with its concern about the disadvantaged, nor could it design a satisfactory methodology for locating and cultivating giftedness among these minority groups. The dilemma was easy to resolve inasmuch as it reduced itself to a choice between battling for social justice as against pursuing excellence, and there was no doubt as to which of the two would better fit the mood of the 1960s.

Vietnam and Dissenting Youth

During the brief Kennedy era, the United States faced the communist world in three near-conflicts: the Berlin confrontation, the missile crisis in Cuba, and the Bay of Pigs. In each instance, we emerged with our self-image intact as the champions of the free world against forces of darkness. The subsequent adventure in Vietnam turned out to be disastrously different, despite the fact that President Johnson justified our entaglement on the same grounds that his predecessor defended his risks of war in Berlin and Cuba. However, what started out as a limited police action that was supposed to last only a short time, before the expected victory would be won and American troops returned home, degenerated into a nightmarish entanglement with staggering sacrifices of life and no end in sight. The leadership in Washington kept the public's hopes for a quick end to the war alive by issuing deceptive reports about successes on the battlefield. Eventually, the nation grew tired of war, suspicious of politicans' promises of a quick victory, and increasingly convinced that we were meddling in affairs of other nations rather than serving as a judge and enforcer of what was morally right in the world.

Among the many casualties of the Vietnam conflict was our perception of giftedness in political leadership. The Whiz Kids of the Kennedy years, many of whom had stayed on in the Johnson era to help formulate strategy for the war effort, eventually turned out to be *The Best and the Brightest* (Halbestam, 1972). While they were quick-minded, articulate, hard-working, and self-confident, they lacked wisdom and sensitivity to the feelings of the masses. Their cerebral artistry proved to be flashy rather than profound. They were rapidly losing their image as people who could become heroes in public life by virtue of their brainpower alone. In fact, their sad history seemed to prove that being supersmart scholastically was no guarantee of superunderstanding of humanity's most serious problems and how to solve them. Gifted youths on campuses throughout the country learned to despise them for their role in the Vietnam debacle rather than reverse them as graduated honors students distinguishing themselves as national leaders.

A serious by-product of Vietnam was a growing unrest among students in the colleges. Many of them saw the war as an unprincipled adventure of the establishment in Washington and perhaps even of the senior generation over 30 who either did not care or did not understand how their actions were affecting the conscience of idealistic young people. Who were these malcontents, and how did they get to be that way?

It would be naive to suggest that a simple set of differentiating characteristics explained campus radicals' behavior in the middle and late 1960s. Kenneth Keniston, who studied them in great detail, made it quite clear that a complex mix of personal attributes, familial influences, peer associations, and school environments set them apart from their more conforming agemates (Keniston, 1971). However, it is noteworthy that a disproportionate number of disaffected youth on campus distinguished themselves in their studies at school and were frequently enrolled in some of the more enriched and prestigious programs. Their immediate targets were the colleges they were attending, which represented to them an establishment with archaic standards for success and unreasonable controls over their lives. Yet these same gadflies in centers of learning were themselves described in one study as possessing high degrees of intellectualism, defined as "Concern with ideas — desire to realize intellectual capacities — high valuation of intellectual creativities — appreciation of theory and knowledge — participation in intellectual activity (e.g., reading, studying, teaching, writing) — broad intellectual concerns" (Flacks, 1967, p. 70).

Some gifted college students took the retreatist rather than activist route and groped for new meaning in their lives privately or among groups of school dropouts; other acted more militantly by campaigning for an increase of student power in the administration of university life. The latter group could not wait to taste the privilege and independence usually reserved for adulthood and were willing to fight the older incumbents to make their presence felt. They were the ones who stormed the offices of college deans and school principals to insist on a greater voice in the governance of their educational experience. Their struggle, in short, was to get in. The retreatist, on the other hand, wanted out. They, too, saw themselves as victims of a world that threatened to suffocate rather than nurture the individual, but their response was a refusal to play the game by traditional rules, a willingness to withdraw from the rat race, sometimes with the help of drugs or some brand of Bohemianism.

The unrest on campus underwent some dramatic changes over a relatively short period of time. As one observer remarked, "The key difference between the Berkeley riots of 1964 and the Columbia crisis of May, 1969 is that in the pre-Columbian case the major impetus for unrest stemmed from the perceived abuse or misuse of authority ('Do not bend, fold, or mutilate'), whereas the later protest denied the legitimacy of authority" (Bennis, 1970, p. 599). One might add that, when attention is called to the *misuse* of power, it is an expression of protest, but when there are doubts about the *legitimacy* of power, it is a sign of revolution.

The revolt was not only against institutions (educational or otherwise) and their leaders; it was also against a tradition of rationalism that sanctified ivory-tower scholarship. When Columbia University rioters willfully destroyed a professor's research files, the act may have carried a message that goes beyond ordinary malicious mischief and vandalism. It seemed to imply that all the work invested in accumulating those files was a waste of the professor's talent, which ought to have been dedicated to building a better society rather than to dabbling in esoteria. And to make matters worse, the educational establishment expected its brightest students to follow in the footsteps of professors like him.

Many questions were raised among gifted college students as to whether they ought to funnel their psychic energies into a life of the mind. Many were attracted to the sensitivity-training movements, which told them that "talking is usually good for intellectual understanding of personal experience, but it is often not effective for helping a person to *experience* — to feel" (Schutz, 1967, p. 11). Accordingly, the human being should not be seen as a thought machine, but, rather, as a complex biological, psychological, and social organism that can fulfill itself through all these dimensions of being. Every part of the body has to be exercised to its fullest potential, which means building up the strength and stamina of its muscles, its sensory awareness and aesthetic appreciation, its motor control, and the gamut of its emotional and social feelings. Inhibiting other aspects of self for the sake of the intellect amounts to robbing life of its multidimensionality, so the task of individuals is to make something of their capacities, even if in so doing they cannot make the most of any of them.

What emerged in the late 1960s was a brand of anti-intellectualism that placed the mind in some kind of human perspective without discrediting it entirely. It also seemed to signal a partial decline of the familiar controlled, achievement-oriented youth faction that won the allegiance of many gifted individuals. To depict the change more clearly, it is useful to offer a slight adaption of Bennis' (1970) paradigm for trends in America's cultural values at that time:

Achievement-Oriented Youth	toward	Awareness-Oriented Youth
Self-advancement		Self-actualization
Self-control		Self-expression
Independence		Interdependence
Endurance of stress		Capacity for joy
Full employment		Full lives

This graphic representation of cultural trends is not intended to suggest that our youth had moved away from achievement orientation to embrace an awareness-oriented way of life. The traits listed as defining achievement orientation are embedded too deeply in our history to disappear or even face appreciably. They form the essence of our Calvinist tradition that promises rewards for hard work and the self-made individual. However, while only a few young people succeeded in casting out the Horatio Alger dream from their life styles, a great many others tempered that dream with visions of "finding themselves" and indulging their sensibilities, not just their intellects, in free, creative ways that might have formerly been inhibited.

Significantly, a new utopia emerged in the form of Consciousness III, depicted by Charles A. Reich in his best-seller, *The Greening of America* (1971). One of the postulates of this new world was described by Reich as follows:

> Consciousness III rejects the whole concept of excellence and comparative merit . . .[It] refuses to evaluate people by general standards, it refuses to classify people, or analyze them. Each person has his own individuality, not to be compared to that of anyone else. Someone may be a brilliant thinker, but he is not "better" at thinking than anyone else, he simply possesses his own excellence. A person who thinks very poorly is still excellent in his own way. Therefore people are in no hurry to find out another person's background, schools, achievements, as a means of knowing him; they regard all of that as secondary, preferring to know him unadorned. Because there are no governing standards, no one is rejected. Everyone is entitled to pride in himself, and no one should act in a way that is servile, or feel inferior, or allow himself to be treated as if he were inferior. (p. 243)

Thus, we see how life for campus dissidents became strangely paradoxical. Many of them espoused the habits of intellectualism generally associated with gifted students. At the same time, they rejected excellence and its trappings as violations of democracy and too stultifying to the attainment of total joy and liberation. Even those consenting to live the life of the mind learned an unforgettable lesson from the events in Vietnam. No longer could they be adjured to cultivate their talents for the sake of their country's prestige and need for survival. The war in Southeast Asia tarnished the nation's image enough to discourage such commitments among a large number of students who could potentially be counted among our high-level human resources. Besides, some may have felt it faintly dehumanizing to be treated like natural resources; it simply did not fit well with the new spirit of selfhood and individuality..

The Devaluation of Science

For many years, consuming or producing scientific knowledge was regarded as a human virtue, particularly if it helped to conquer nature in order to make humanity's life more comfortable. There was hardly much doubt that gifted children would derive great personal satisfaction and a certain measure of power and freedom if they became highly informed about the secrets of the universe or contributed significantly to unraveling some of these mysteries.

In the 1960s, however, serious doubts were raised about the value of scholarship in general, as it had been traditionally transacted in the schools. Significant segments of campus youth began to sour on knowledge factories, and Herbert Marcuse, one of their most influential, though not so young, advocates, warned about the mechanizing, denaturalizing, and subjugating impact of knowledge (Marcuse, 1964).

Gifted youth in the age of *Sputnik* had been bombarded with the message that a lifetime devotion to achievement in science in particular was not only in the interests of the state but of humankind in general. Such pursuits have their own built-in ethic, that any efforts at pushing back the frontiers of theory and research deserve the highest commendation because they attest to humanity's divinelike power of mastering its environment and creating its own brand of miracles. Suddenly,

the nation was told that science is as fallible as the one who advances it. Among the most vocal critics were the environment-minded scientists who warned that, in our enthusiasm for conquering nature, we may be destroying ourselves in the process unless we impose restraints on such activity (Bereano, 1969).

Perhaps the best known writer to forecast doom if science were to continue on its conventional course was the biologist, Barry Commoner, whose book, *Science and Survival* (1966), enjoyed wide circulation and influence. Commoner took the ecological point of view that the elements of nature are integrated, but our knowledge of these elements is so limited that we do not see their connectedness. Expressing deep concern about science's preoccupation with the elegance of its methods rather than the danger of its products, he directed much of his fire at the polluting effects of such symbols of technological giantism as nuclear testing and industrial waste. He acknowledged the need for brainpower to enrich scientific thinking, but he also warned that "no scientific principle can tell us how to make the choice, which may sometimes be forced upon us by the insecticide problem, between the shade of the elm tree and the song of the robin" (p. 104). With such caveats, it became more difficult to convince gifted children that a life dedicated to science is the kind of high calling it once was unless closer links were made between the intellect and the conscience.

Besides being tarnished because little account was taken of their human consequences, careers in science lost more of their glitter when the job market in various related fields began to tighten. The manpower crisis dramatized by *Sputnik* gradually calmed down when we began to overtake the Russians in the technology race and achieved a victory of sorts by transporting the first man to the moon in 1969. Personnel shortages in the various fields of science were no longer critical, partly because the flood of graduates in the early 1960s had filled available jobs, and, also, because the Cold War was not considered serious enough to create new jobs through lucrative defense contracts. In fact, by the late 1960s, many Americans were suspicious of the so-called "mulitary-industrial complex" for carving too much out of the tax dollar to support projects that they considered wasteful in times of peace. The primary need as seen then was to solve the problems of social unrest rather than to prop up our defense technology. Many would-be scientists and engineers began to realize that these professions attracted neither the prestige nor the occupational rewards that would have been guaranteed only a few years earlier. However, the supply of scientific talent did not slow down in accordance with the reduced demand, and as a result of the imbalance, many highly trained personnel found themselves either unemployed or working at jobs outside their fields.

The 1970s: Renewed Interest in the Gifted

The decline of attention to the gifted in the 1960s is evident in the contrasting number of professional publications on that subject at the beginning and end of the decade. The number of entries under "Gifted Children" in the 1970 volume of *The Education Index* was less than half the number in the 1960 volume. Nevertheless, by the outset of the 1970s, there were unmistakable signs of a revival of interest. Probably the biggest boost came from a 1970 Congressional mandate that added Section 806, "Provisions Related to Gifted and Talented Children," to the Elementary and Secondary Educational Amendments of 1969 (PL 91-230). This document expressed a legislative decision to include the gifted students among those receiving help from Titles III and V of the Elementary and Secondary Education Act and the Teacher Fellowship Provisions of the Higher Education Act of 1956. It also directed the commissioner to:

1. Determine the extent to which special education assistance programs are necessary or useful to meet the needs of gifted children.
2. Show which federal assistance programs are being used to meet the needs of gifted children.
3. Evaluate how existing federal educational assistance programs can be used more effectively to meet these needs.
4. Recommend new programs, if any, required to meet these needs.

The target population was defined as the upper three to five percent of school-age children who show outstanding promise in six categories of giftedness: general intellectual ability, specific academic aptitude, creative or productive thinking, leadership ability, visual and performing arts, and psychomotor ability.

In response to the mandate, the then Commissioner Sidney P. Marland, Jr. issued a report of his findings and recommendations that set the stage for doing something significant about the deteriorated condition of programs for the gifted (Marland, 1971). He estimated that only a small percentage of the 1.5 million to 2.5 million gifted school children were benefiting from existing school services and that such services had a low priority at virtually all levels of school administration. Furthermore, even in those localities where there were legal or administraive directives to provide special offerings, little was accomplished due to other funding priorities, more threatening crises, and the absence of adequately trained personnel. Clearly, Marland saw the gifted as a deprived group whose talents were in danger of serious impairment unless appropriate intervention strategies were planned. He, therefore, declared his intention to initiate a series of major activities at the federal level with the hope of inspiring and pressing for more commitment on behalf of the gifted throughout the nation's schools.

As a result of federal encouragement and some public and private initiatives, the gifted were exposed to an increasing number of special educational experiences in the 1970s. While as late as 1973, fewer than four percent of the nation's gifted were receiving satisfactory attention at school, and most of the fortunate ones were concentrated in ten states, the nationwide picture improved considerably within the decade. Zettel (1979) reported the following outcomes of a survey conducted in 1977:

1. Nearly 75 percent of the states already had statutory definitions of gifted children.
2. Thirty-three (or 66 percent) of the states reported an aggregate increase of nearly 25 percent over the previous year in the number of gifted children served.
3. Thirty-one (or 62 percent) of the states increased their appropriations for the gifted by 50 percent.
4. Forty-two states reported sponsoring some kind of in-service training for persons interested in serving the gifted, a 110 percent increase over the previous year.

Leadership at the federal level also grew much stronger in the first half of the decade. After being in existence for a brief three-year period as an understaffed, temporary unit in the U.S. Office of Education, Bureau of the Handicapped, the Office of the Gifted and Talented was given official status by legislation in 1974. The Special Projects Act resulted in a 1976 appropriation of $2.56 million for developing professional and program resources in the field. The allocation was renewed for 1977, but did not rise dramatically above that modest level during the remainder of the decade.

There was talk about possible legislation that would change the Bureau of the Handicapped to the Bureau of Exceptional Persons, thus including gifted individuals as eligible for sustained support

of their education, along with the handicapped. If this kind of move had been made, it would have gone a long way toward erasing the image of gifted education as being only a periodic fad in the schools. It is admittedly a way of forcing attention on the ablest by tying their fortunes to those of the handicapped, for whom funding rarely abates appreciably. The public may never feel equally sympathetic to both groups, but it coulld have been forced to reduce some of its favoritism toward one over the other if they were combined rather than separate recipients of support through legislation.

The thrust of activity for the gifted in the 1970s was mostly programmatic and promotional, with relatively little emphasis on research. Funding at all levels was invested in curriculum enrichment, teacher education, and training for leadership in the field. As part of their work on curriculum, many educators designed or adapted special instructional systems in order to offer experiences to the ablest that were uniquely appropriate for them, not just promising practices from which all children could derive benefits.

Some of the enrichment plans that enjoyed wide circulation include instructional adaptations of Benjamin S. Bloom's *Taxonomy of Educational Objectives: Cognitive Domain* (Bloom, 1956) and Mary Meeker's application of the Guilford *Structure of Intellect* model to classroom instruction (Meeker, 1969). Both approaches concentrate on the complex cognitive processes that the gifted are best equipped to handle. An even more popular design was the *Enrichment Triad* (Renzulli, 1977), which called attention not only to higher-level intellective strategies, but, also, to the need for introducing special curriculum content and for stimulating task commitment among able children.

Efforts initiated in the 1970s to develop distinctive curricula for the gifted may result in some lasting contributions to the field. Instructional aids that were created and distributed in many localities incorporate large numbers of divergent thinking exercises. This development reflects the foundational work of several prolific educators whose writings fairly dominated the field during the 1960s. Among the most influential persons has been E. Paul Torrance, who alone and with the help of occasional collaborators, was responsible for at least seven major books and monographs, as well as a huge number of professional papers on the subject of creativity from 1960 to 1970. The popularity of research and materials development pertaining to divergent thinking also had its impact on the classroom. It clearly became a dominant theme in curriculum enrichment. However, it is not the only one that will vie for attention when inventories are taken of programs of the 1970s. Values clarification made its debut in that decade and has been gradually spreading in classes for the gifted. It introduces a new dimension in the curriculum by stimulating children to understand themselves better and to develop belief systems and behavior codes that they can justify as bases for some of the most important decisions of their lives.

Again, as in the post-*Sputnik* period, interest during the 1970s was expressed in gifted children with high social intelligence and in those especially talented in the visual and performing arts. It is hard to say whether educators were discussing the needs of such children more than their predecessors did two decades earlier. From all indications, it would seem that they barely got beyond the lip-service level of commitment with the help of federal support. Even less fortunate were the gifted among the underprivileged minority populations who remained largely neglected, except in the arts, but not deliberately so. There is no doubt that many educators would gladly have initiated enrichment experiences for these children and that support was obtainable for such plans if they had stood a chance of success. However, the profession was stymied in its efforts to find a clear way of discerning high-level academic potential that was buried under a thick overlay of social and economic handicaps. In fact, it is hardly less difficult today to inspire the fulfillment of scholarly talent in the nation's underclasses.

In its desire to sustain interest in the gifted, the federal government funded projects designed to strengthen leadership in the field and to spread advocacy at the grass-roots level. The National/State Leadership Training Institute received federal funds to help state education departments develop viable plans for educating the gifted. In addition, Teachers College, Columbia University, was provided with support to coordinate efforts by seven universities in recruiting and training graduate students to become seminal figures in the field. It was seen as a long-range investment in the careers of men and women who had shown promise for making significant contributions in the 1980s and beyond. Besides these nationwide projects, the federal government, along with state, city, and private agencies, sponsored many regional and local programs for the gifted. The emphasis was mainly on enrichment practices, whereas research and experimentation received relatively little encouragement.

While benefiting from the work of dedicated professionals, the field was also victimized somewhat by crass promotionalism during the 1970s. There were highly skilled manipulators of audiences who organized public meetings for the gifted and turned them into revivalist sessions, filled with emo-

tion but little substance. The interest of these opportunists was not in gifted children, but, rather, in exploiting the real and latent enthusiasm of people who were willing to pay the fees to attend such conferences. Fortunately, this kind of slick salesmanship did not penetrate the more established advocacy organizations, but educators found it sometimes difficult to distinguish between the two.

Generally, the enrichment programs initiated in the 1970s are impressive in their variety, inventiveness, extent of their dissemination, and spirit and proficiency with which they have been implemented. The same cannot be said for research productivity. A review of the state of research for the years 1969 to 1974 reveals a fairly bleak picture (Spaulding, undated); only 39 reports on the gifted had been published in that period. These efforts continued to be limited throughout the 1970s, but there are several major projects worth noting. They include Julian Stanley's (1976) studies of mathematical precocity, Halbert Robinson's (1979) investigations of the cognitive development of young able children, Pauling Snedden Sears' (1979) and Robert Sears' (1977) periodic assessment of the Terman population in their senior period of life, and George Vaillant's (1977) follow-up evaluations of the mental health status of adults who had been rated outstanding by their Harvard classmates in the 1940s and were in midcareer in the late 1970s.

What prompted the resurgence of activity in gifted education after nearly a decade of quiescence? A full answer probably will not come until future historians can view the 1970s in a proper time perspective. But the explanation that seems most obvious is America's backlash against awareness-oriented youth who turned excessively self-indulgent and against campus revolutionaries who attacked some sacred, scholarly traditions. Watner (1976) published a scathing indictment of universities for compromising academic standards, inflating grades, and diluting degree requirements to fend off unrest among students. These were signs that the pendulum had swung away from extreme egalitarianism in the direction of excellence. It is hard to imagine the youth of the late 1970s accepting the Consciousness III notion about brilliant minds not being better at thinking than anyone else and about poor thinkers necessarily being excellent in their own ways. That kind of argument may be too fantasy-ridden to flourish successfully even in an egalitarian-minded society. However, there are legacies of the 1960s that were volatile enough in the 1970s to have prevented the gifted from making a comeback. They include the following realities:

1. Few personnel shortages continued to exist at the high-skill levels. The job market was glutted with Ph.D.s who could not find work in their fields of training. In 1976, the starting salary of college graduates was only six percent above that of the average American worker, whereas in 1969, a person with a college diploma could earn 24 percent more than the national mean.
2. The Cold War, while relentless, did not threatan any new surprises in the 1970s to shake our confidence in the nation's talent reservoir. There was even talk of moderating the confrontation between East and West through policies of detente and arms control.
3. It was not much easier in the late 1970s than in the late 1960s to pursuade our ablest students that they had to work hard at school in order to serve their country in ways that only they could. National policies in Vietnam and in the civil rights movement had persuaded too many of them that the country was not worthy of such dedication. When the war in Vietnam came to an end, Watergate emerged to reinforce the cynicism and alienation of youth, including many gifted among them.
4. Quality, integrated education was as much a dream in the 1970s as it had ever been. A prodigious amount of work remained yet to be done before underprivileged children could begin to derive their rightful benefits from experiences at school. That kind of investment of effort in compensatory programs usually draws attention away from curricular enrichment for the gifted.
5. Science and scientists were still monitored critically for possible moral lapses. A growing controversy concerning value judgments in the scientific community revolved around experiments in genetic engineering. Some gifted children may have chosen to avoid fields of science to keep their consciences clear about possibly opening any kind of Pandora's box in scientific discovery.
6. The 1970s experienced hard times and drastic cutbacks in expenditures for education. Programs for the gifted are usually the most expendable ones when budgetary considerations force cutbacks in services to children.

Despite the aforementioned lingering influences of the 1960s, the 1970s experienced a drift toward excellence after indulging egalitarianism for a while. However, the revival of interest was no more a sign of pure historical inevitability than was its decline a decade earlier. It was rather, in part at least, a sign of initiatives taken by people who believed in differentiated education at every ability level and who participated in vigorous campaigns to save the sc[illegible]ols.

Perscriptive Teaching for All Children

When Frank Riessman published his highly influential book on the culturally deprived child in 1962, he reiterated a number of criticisms of the schools made some fifteen years earlier by Allison Davis and Robert Havighurst (1947). The charges were that the curriculum was excessively loaded with verbal content, and, therefore, placed underprivileged children at a disadvantage; that the subject matter was irrelevant to the vital concerns of these children; that teachers espoused values and behavior codes that were oriented too narrowly toward middle-class living; and that schools were so preoccupied with teaching the disadvantaged how to become socially mobile that they were in effect trying to create a melting pot rather than striving to strengthen cultural pluralism. However, researchers did not take their lead from such charges. Instead of tampering with the old curriculum, they tried to create a learning environment that would enable the disadvantaged to meet the more conventional demands at school.

Among the most notable experiments at the time were those conducted by Martin Deutsch (1964) and his associates. They attempted to forestall educational retardation by intervening early in children's lives and equipping them with the readiness skills that they could not derive from their social millieu. This required developing elaborate ways in which to diagnose individual learning profiles and to match instructional practices to them. It paralleled developments in special education for the handicapped, which emphasized prescriptive teaching based on increasingly sophisticated methods of diagnosing intellective processes. These approaches to instruction eventually led to the 1975 enactment of Public Law 94-142 and its requirement that every handicapped child have an individual diagnosis, prescription, and evaluation.

Attention to specific competencies among the handicapped dramatized the need to individualize education, with all children receiving a fair share of what is uniquely appropriate for them, regardless of how deficient or proficient they are in mastering curriculum content. It is logical, then, that the gifted should also receive special attention to accommodate their unique learning strengths and thereby demonstrate the educator's attention to human differences. Eventually, PL 94-142 may include the gifted, which would take us a long way toward actualizing the belief that democracy in education means recognizing how children are unlike each other, and doing something about it. Protagonists for the gifted have argued that the more sophisticated we become in discerning human individuality and the more inventive we are in providing for individual needs of the ablest, the more likely we are to achieve equality at school.

The Role of the Gifted in "Rescuing" Public Education

It is no secret that educators in the 1970s searched desperately for ways in which to maintain order in thousands of classrooms. This was especially true in big-city schools where 10 percent of the nation's pupil population was enrolled. The dismal picture was a familiar one: scholastic achievement levels were three, four, and even five years below norms; drugs, violence, vandalism, and truancy reached epidemic proportions; and costs climbed to such a height that there was always the danger of insufficient funds to pay the bills while maintaining an adequately staffed program. Many middle-class families fled the inner city in the 1970s or sought help from private schools in order to provide a meaningful educational experience for their children. This further aggravated the situation in urban centers.

School administrators became aware that one way in which to bring back the middle classes to the schools was to initiate special programs for the gifted. They, therefore, opened so-called "magnet schools" that offered enrichment activities in particular subject matter areas to interest sizable numbers of children who would otherwise have been studying elsewhere. The presence of the ablest began to make a difference in the total school atmosphere, which demonstrated that these children are capable of enhancing all education if their learning capacities are properly respected. This truism may turn out to be the most important lesson learned from our experience with gifted children in the 1970s.

The 1980s: Sustaining Interest

The gifted are the natural enemies of George Orwell's "Big Brother" since they thrive on freedom to express their iconoclasm and to create alternatives in the world of ideas. If Orwellian predictions for the 1980s ever come true, it will be tragic proof of how ineffectual we have been in nurturing talent for the strengthening of selfhood in the human family. But even the failure of Big Brother to materialize is no guarantee that we will finally break the vacillation between public enthusiasm and apathy toward gifted children and continue to build on the hard-won gains of the late 1970s. Signs of the future are always difficult to read, whether they are used in forecasting the weather or conditions in society. The fortunes of the gifted are no less mysterious. There are, however, unmistakable trends that will probably impact in some ways on these children, although it is impossible to say precisely what the effects might be.

Demographic Change

Perhaps the most important factors to influence the demand, nurturance, and supply of talent in the 1980s are basically demographic. By the end of the decade, an upsurge is expected in the number of new births as the large cohort of children born during the postwar baby boom come of age to contemplate parenthood. At the same time that the size of the 30-to-1 45-year-old age group increases dramatically, there will be a sharp upsurge in the total number of people over age 65 and a proportional decline in the adolescent and young adult groups who were born at a time of low birthrates. The needs of the very young child, the maturing adult, and the senior citizen will therefore receive special consideration.

Catering to the tastes of the youth culture may no longer be as important as it once was to budding artists. It is not easy for the tender ears of infants or of the aging adult to tolerate the stridency that has been associated with new music, theater, and poetry in the 1960s and 1970s. The kinds of social leadership, scientific research, medical care, political acumen, educational guidance, and mental health treatment may also have to change radically to make sense for the rapidly shifting age groupings of the population. These developments pose exciting problems for specialists in curriculum design who are dealing with educational enrichment for the gifted.

Along with the expected age redistributions, there is also likely to be a huge increase of highly trained personnel in the sciences and humanities (National Center for Education Statistics, 1976). Except for mathematics and statistics, which had a 33 percent drop in earned doctorates from 1975-1976 to 1985-1986, all the other areas of concentration have increased, including a modest five percent for the humanities and anywhere from 22 percent to 200 percent in the fields of education and various sciences.

As a result of a jump in numbers of people with advanced degrees, there may emerge a new class of brainworkers consisting of educators, social planners, policy makers, and communication experts. They are being mass produced at graduate schools and are beginning to assume important positions among political policymakers and in the huge nonprofit foundations that subsidize the efforts of other brainworkers. There are also the technocrats in giant corporations who conduct market research and help to set policy. One of the most critical positions for people with advanced schooling is in the media centers where they can filter the flow of information and exert a strong influence on public reactions to issues. It may be the first time in modern history that a new power faction is emerging that can thrive mainly on its highly developed wits and remain independent of the proletariat left and burgeois right. If such a group can gain visibility and maintain prestige as a mover of events in the nation, then it may serve as a reference group for gifted students to aspire toward joining someday. On the other hand, the emergence of an influential bloc of this kind may be resented by those who see it as a sign of the coming of meritocracy led by an intellectual elite. Any public backlash would then have a dampening effect on school programs for the gifted and on children's desire to excel.

New Sources of Talent

Even though it is impossible to determine whether events in years to come will encourage or inhibit the realization of early promise among children, there is good reason to expect that the pool of high potentials will become enlarged considerably. There are unmistakable efforts to achieve a major victory in the nation's battle against underachievement among gifted women, blacks, and various bilinguals who have perennially been victimized by minority group status. This population is so huge that any dramatic progress toward cultivating its abilities at the highest levels could have historic consequences, positive or negative

There is always the prospect of an enormous talent pool creating a golden age of culture in America. Then again, a superabundance of brainpower (if such is conceivable) may cause the supply of people with advanced training to exceed the demand by far and thus intensify the rivalry for placement in high-level occupations. And, since the enlarged pool will probably attribute much of its growth to a sharp increase in the proportion and number of low-status people in its membership, the competition for jobs may not only be among individuals, but, also, between representatives of minority and majority groups. The fierce struggle for work that ordinarily occurs when supply exceeds demand could then turn into vicious antagonism with sexist and racial overtones.

It is already apparent that women and low-status minorities are moving toward parity with middle-class white males in the extent and variety of their advanced education. Trends indicate a sharply rising representation of women in every creative field. Over the ten-year span from 1975 to 1985, there has been only a six percent increase in first professional degrees for men, as compared to a huge 122 percent for women. During that same period, the increase in earned doctorates among men is from slightly under 27,000 to about 28,000 or four percent, whereas for women the jump is from some 8,000 to about 14,000, or about 75 percent. In the overall record of higher education, females earn half the number of degrees granted males, an imbalance that is likely to change dramatically by 1990. In 1977 alone, women comprised 93 percent of the nation's enrollment growth in colleges, and in 1979 they succeeded in becoming a majority (52 percent) of undergraduates in the under-22 age group (McDonald, 1979).

Changes in the sex distribution among college students undoubtedly reflect a sharp change in the opportunity structure in the arts and sciences that once victimized women. We seem to be coming a long way from the early part of the century when Cattell (1906) included only 149 women among the 4,131 scientists (3.6 percent) listed in his biographical directory of American men of science. By 1921, the proportion of women scientists rose to 4.8 percent, a change of only 1.2 percentage points over a decade and a half (Rossiter, 1974). The story is told (Kevles, 1978) that the Harvard physics department voted against awarding an honorary degree to Marie Curie because of her gender. Also, Jane Dewey, daughter of the philosopher John Dewey, earned her doctorate in physics at MIT and spent two years working with Nils Bohr in his Copenhagen laboratory. Yet, when Karl Compton recommended her in 1929 for a faculty post at major American universities, he was turned down. A Berkeley physicist explained that his colleagues would not accept a woman on staff. In art, the creative powers of women have probably been even more neglected. Germaine Greer's (1979) study of female artists reveals the tragedy of wasted, unfulfilled, and unrecognized talent in this huge segment of the population.

Considering the changing status of women in society, it is difficult to imagine that talent among them will continue to be suppressed as in former generations. Parents of school-age girls do not tolerate such biases as readily as the girls' grandparents would have, especially if the mothers of these children are themselves members of the new generation of women with advanced training and are in mid-career. Furthermore, opportunities for employment at all skill levels are increasing dramatically for women and will continue to do so in the foreseeable future. According to the U.S. Bureau of Labor Statistics, the number of men who will probably be added to the labor force from 1979 to 1995 is 8.1 million, not even half the 16.5 million figure for women. By 1995, more than 60 of every 100 women of working age will be employed, an increase from 43 per 100 in 1970. At that time, they will constitute over 45 percent of the prime-age work force. Some of the professional occupations filled mostly by males possessing marketable talents that require advanced training are now absorbing unprecedented numbers of women. These professions include engineering, law, medicine, dentistry, and the life sciences.

A similarly brightening future can be seen for the black population. In 1940, total black enrollment in postsecondary education was less than 50,000 and over 95 percent of that group was enrolled in traditionally Negro colleges (Pifer, 1978). By 1976, the number of blacks in colleges and universities

had risen dramatically, to 1,062,000, and for the 1975-1976 academic year alone, more than 83,000 blacks earned baccalaureate, masters, medical, law, and Ph.D. or Ed.D. degrees (Pifer, 1978; National Center for Education Statistics, 1978).

There is reason to expect the upward trend to continue as more and more blacks are accepted into the managerial, professional, and technical segments of the labor force. What women, blacks, and other minorities are finding in the high-skill labor market in the late 1980s is an increase of about 29 percent over the mid-1970s in the number of professional, technical, and kindred occupations. What they are also discovering, unfortunately, is that the number of adults with advanced education is increasing far more sharply, thus dimming the employment outlook for them. The total openings for Ph.D.s over the 1972-1985 period for growth and replacement is estimated at about 187,000. The actual supply of new Ph.D.s shows signs of numbering as many as 580,000 in the second half of the present decade. In all probability, doctoral recipients from all subpopulations will find it more difficult to locate work commensurate with their training. But the women and minorities are most vulnerable on account of age-old prejudices in our society, unless affirmative action practices can achieve a balance of opportunity in the lean years ahead.

Regardless of the opportunity structure, there can never be a surfeit of creative artists, scientists, writers, philosophers, and composers. Even so, the supply will depend at least to some extent upon public support for innovative activity. If past indicators of such support are also harbingers of the future, then what lies ahead does not seem promising. For example, in the sciences, public and private spending for research and development reached a peak of three percent of the gross national product in post-Sputnik 1964. By the end of the 1970s, it slipped to 2.3 percent, and it supported more scientists' work on new weapons systems than on new energy sources and increased food production combined (Brown, 1982). As might be expected, there has been a parallel decline in creative productivity among scientists. According to the National Science Foundation, in 1966 foreign countries granted American inventors 45,633 patents, while the United States gave only 9,567 to foreigners that year. However, in 1976, the number of American inventors granted patents abroad dropped by more than 25 percent, to 33,181, while the number of non-Americans earning U.S. patents almost doubled to 18,744. Predictably, too, opportunities for research scientists have diminished and, along with it, the flow of young blood entering scientific ranks in some fields. The share of American scientific papers published in the world has also dropped in chemistry, physics, engineering, biology, and psychology since the mid-1960s.

There is no way of forecasting how long the decline of investment in the creative aspects of science will continue since there are situational factors that can change the picture overnight. Nevertheless, the potential for innovative work will reach a new peak in the late 1980s when the nation will have in its midst the largest talent pool in history. It remains to be seen whether all these gifted persons will be given opportunities to produce and perform at their fullest capacity.

Trends in Diagnosing and Nurturing Excellence

Tactics for identifying children who might qualify for the talent pool of the future will probably undergo interesting change, some of it quite radical. There is no end in sight to the debate over the meaning of IQ, its measurement, and the nature-nurture issues that revolve about it, all of which arouse powerful emotions, as well as scientific interest. Some behavioral scientists (Estes, 1976; Voss, 1976) have foreseen a decline in the concept of intelligence as a useful description of higher-level cognitive powers and expect it to be replaced by more diagnostic analyses of the patterns and processes of human functioning. This kind of orientation to the measurement of intellect conforms to the pioneering approach taken by Piaget (1952) in monitoring clinically the development of children's problem solving behavior.

Feuerstein (1979) also opts for measuring the dynamics of human potential. This means determining the extent to which children's functioning levels can be modified through what he calls mediation, or the examiner's use of appropriate helping tactics and practice materials. The idea of mediating the child's entering behavior in a test situation is novel in that it revises the role of the examiner from that of an objective observer to a participant observer who orients the child to the cognitive principles involved in the test experience. Feuerstein asserts that the organism is so modifiable that mediated learning affects not only the cognitive functioning of the individual, but the structure of intellect as well. Such is the power of regulated encounters between the individual and environment. It is a radically different point of view from that of Wilson (1978) whose theories on sociobiology are applied

to humans and animals alike and who argues strongly for considering the impact of evolutionary processes in shaping our emotions and abilities. All higher-level mental activities, including altruism and morality, are regarded not as free, independently developed behaviors, but, rather, as products of biology, specifically genetic impulses that can be traced back to the earliest of our human ancestors and to our closest primate relatives. We thus have a polarization of points of view about the origins of intelligent behavior represented by theories on mediated learning at one extreme and genetic causality at the other. The paradox is that both approaches seem to be leading themes in the 1980s and perhaps beyond.

Today's Cross-Currents: First the Bad News . . .

Those who have devoted many years to education for the gifted in one capacity or another are sometimes driven to despair by old-wives' tales about giftedness and its nurturance, some of them persistent, others recurrent. In other words, there are myths that simply never die or even fade away. This is not meant to imply that if we could somehow lay this wrong-headed thinking to rest once and for all time, the field would be in robust good health. Far from it. Even if the public — laymen and professionals alike — were fully convinced that the gifted *require* a unique learning experience without doubts or reservations, there would still be a lack of vital consensus on the meaning of differentiated education, how to implement it, how to locate children who need and can benefit from it, and how to be sure of its educational impact. Of course, psychologists and educators could move more quickly toward confronting these issues if detractors were not constantly snapping at their heels.

Although many nagging myths and shams continue to stultify efforts on behalf of gifted children, there are also real advances that have been made over the last three decades. Both kinds of reality deserve continuous exposure, but for opposite reasons. The myths and shams need the constant, cold light of reason to *hasten* their extinction; the advances deserve perpetual savoring in order to *forestall* extinction. The former represents the bad news; the latter, the good news, which will be addressed in that order, so that this essay might end on a positive, hopeful note.

IQ Flogging: A Favorite Indoor Sport

Sometimes even friends and supporters of special education for the gifted act like the legendary cop in Brooklyn who found a dead horse on Kosciusko Street at the turn of the century. He had to fill out a report of his discovery, but couldn't spell "Kosciusko," and there were no street signs in those days that he could copy. So he simply dragged the poor cadaver to Marcy Avenue and wrote his report there. This determination to escape reality characterizes many efforts at understanding and cultivating giftedness.

Take, for example, the ubiquitous IQ and its relevance to gifted behavior. It seems there is hardly a self-respecting professor of education or psychology nowadays who fails to warn about the obsolescence and even dangers in the use of intelligence tests in identifying superior potential. Yet, these self-same professors who denigrate the IQ as valid for such purposes invariably cite without criticism the Pegnato and Birch (1959) study as evidence that teachers are notoriously ineffective and inefficient in recognizing, with the naked eye, who is truly gifted in their classroom. Who *is* truly gifted in the Pegnato and Birch report? Why, children with IQ's of 130 and above! Despite their railings against the IQ, those who accept the Pegnato and Birch conclusions seem to find it hard to "spell out" alternative criteria for giftedness. So they merely drag the concept over to the domain of IQ, which is so much easier to "spell." The same bad habits beset those who compose trait lists to guide teachers in recognizing symptoms of giftedness in children, without relying on the IQ. Now where did these traits come to light originally? From studies of high-IQ children, of course! Back to Marcy Avenue, this time taking the roundabout way.

The point here is that we can't have it both ways. We can't argue through one side of our mouths that it is naive to equate giftedness with high IQ, and pontificate through the other side of our mouths on existing knowledge about giftedness, based on research on high-IQ children. If we are prepared to abandon the IQ altogether, then leaders in the field of the gifted have to ignore entirely Lewis Terman's research and its derivatives, formulate a new set of descriptors and accompanying measurement instruments, and do some honest, long-range hard work in studying children who fit the *new* descriptors, as Terman did with his high-IQ sample. Few are ready to do so, because in their professional heart of hearts most behavioral scientists know the inexcapable truth in that high IQ figures prominently in some kinds of potential giftedness, far more prominently than does any other *single* measure of intellectual power. Yet they refuse to admit it, for fear of violating the current fad of IQ flogging that is so popular in educational psychology. They would rather go over to "Marcy Avenue" for conformance sake, rather than stay on "Kosciusko Street," where they so often find their quarry in the first place!

Provisions Masquerading As Programs

As a research assistant in the Talented Youth Project in 1954, the present author came upon a nationwide survey of educational offerings for the gifted, published in 1941. It contained the usual facts and figures on numbers of programs in various size cities, proportion of qualified students enrolled in special programs, the curriculum emphases, and other relevant trivia. The story it told was a sad one, but what seemed especially noteworthy were a few narrative details that might be called "color material" to balance out the "colorless" data. The author of that report singled out, by name, about a hundred schools as having exemplary, imaginative curricula for the gifted. This listing provided a rare opportunity to find out what these schools had learned from *their* thirteen years of experience (i.e., 1941-1954) in working with precocious children. The Project staff could then use such information to help schools get enrichment off the ground. Why waste time, thought, and energy reinventing the wheel?

The schools were thereupon contacted for information about their programs and for advice they would offer schools that wanted to get started on their own programs. What successes and failures could they report, and what had they learned from them? Happily, nearly all of the schools answered our queries, and unhappily the replies were not encouraging. In every case, the so-called "special programs" were no longer operative. In fact, they weren't meant to last a long time. What they had really amounted to were imaginative projects initiated by talented teachers and supported by administrators who shared their concern about the plight of the gifted. One classroom had featured raising chicks; another had concentrated on opera production. And, none of these goodies had lasted very long, usually because the talented educators who had made them possible were long since gone from their posts, having moved on to bigger and surely more honorific jobs in their profession.

The survey revealed a fundamental difference between *programs* for the gifted (which schools *claim* to offer) and *provisions* for the gifted (which most schools making such claims *really* offer). A *program* is a comprehensive offering, sequenced over a long period of time, usually designed as a requirement, and very much a major part of the total school curriculum. Thus, the school offers *programs* in mathematics, literature, art, social studies, and the like. A *provision*, on the other hand, is more fragmentary, an ad hoc offering, relatively brief in duration, often designed by an individual teacher with special abilities rather than by a curriculum committee, and supplemental to the major offerings, not integral with them. Thus, a teacher who is interested in electronics will initiate a special *provision* in that subject for a selected group of qualified pupils. Another teacher may be interested in writing psychodrama, and will design *provisions* around such activity.

The lesson learned in the mid-1950s about provisions being a counterfeit for programs has been confirmed more than thirty years later. The Richardson study (Cox, Daniel, & Boston, 1985) reports a survey of some 16,000 schools (of which only about 10 percent responded, an ominous sign in itself!) that found once again only fragmentary enrichment provisions, not programs, in most schools that claimed to be servicing the needs of the gifted. How demoralizing is it to witness the futility of the gifted movement in elevating curricula for the gifted from the level of provisions to that of programs, even after so many years of dedication and effort. To make matters worse, history has shown that even full-scale programs for the gifted can turn, as if by magic, into provisional fluff and then disappear with hardly a trace.

Nurture or Neglect: No Difference?

One of the widest spread myths about gifted children is that they excel with or without special education. People who argue against enrichment programs claim they aren't worth the investment on grounds that "talent will out anyway," as if full-blown from Zeus' head. To reinforce their doubts, they cite familiar cases of immortals, such as Churchill, Edison, and Einstein, who apparently suffered no ill effects from mediocre schooling or uninspired upbringing at home in their early years of life. In other words, they claim that talent incubates strictly from an individual's innate resources, and the only real help we can give is to clear away all insurmountable obstacles that stand in the way of achievement.

Advocates of the "hands-off, differentiated-education-is-useless" point of view surface time and again in the professional literature. Typical of such a periodic appearance is Barry Bull and his 1985 piece, which has the effect of putting education for the gifted on the defensive once again. He doesn't present new arguments in his polemic; instead, he merely reiterates the charge that cur-

riculum enrichment is a waste of effort, and that many young people grew up to be eminent without showing conventional signs of giftedness in their childhood years. These pages are not the place to debate the issue, but the periodic appearance of attacks such as Bull's suggests that advocacy for the gifted is fated to be on the defensive despite anything anybody can say in its defense. There will always be people who believe that talent is irrepressible in some children and impossible to nurture in others. Why, then, invest in special programs for the gifted? There are educators who raise the question openly in their cynicism about differentiating programs for anybody, except for the handicapped. Many more are skeptical rather than cynical about the need for providing "extras" in the curriculum. They will do it under pressure of public opinion or advocacy groups, but not wholeheartedly.

As in the case of other myths, there seems to be a sobering ghost of truth behind the belief that potentially gifted children can make it on their own. While their accomplishments are anything but effortless, they seem to earn honors despite exposure to indifferent teachers, unimaginative curriculums, unsympathetic parents, jeering peers, and poor adjustment to school. But such appearances are generally misleading. Biographies and autobiographies of immortals invariably credit inspirational events or people for making the big difference between "mere" competence and rare distinction. It is difficult to imagine a gifted person who hasn't had a memorable learning experience, though it needn't have been a formal school program or setting.

Far more sobering is the tragedy of unfulfilled talent that shall forever remain lost because nobody cared to nurture it. Of course, there will always be a Churchill whose teachers fail to recognize early signs of genius in oratory and war leadership; there will always be an Edison whose teachers mistake learning disability for mental retardation and who don't appreciate potential greatness in a compulsive tinkerer; and there will always be an Einstein whose creativity is unrecognized at school because of slow language development and an off-beat approach to scientific truth.

But who knows how many wars might have been averted, diseases conquered, and masterworks created if countless children, who could someday have made a difference, were brought up in an environment that enabled their talents to flourish rather than wither on the vine. School teachers are forever reminiscing ruefully about students they considered might-have-beens, haunted by "if onlys" in their lives. If only they encountered teachers who cared; if only their education were enriched enough to stimulate and inspire; if only they had parents who understood; if only they had friends who encouraged; if only the times they lived in were suffused with a spirit of excellence . . . The fact is that nobody can ever know the magnitude of society's loss incurred by unfulfilled high potential. If it could be calculated somehow, then there is no doubt that *every* educational program would strive to stretch *every* potentially gifted child's mind to its outer limits.

Stigmata Take Long to Heal

Nearly 25 years ago, there appeared a disturbing report (Tannenbaum, 1962) on the stereotypes that adolescents attached to academic brilliance. It showed that among high school juniors of that era, being brilliant per se was no more (or less) acceptable than being average at school. But, woe unto the brilliant adolescent who was studious and got homework assignments in on time! Worse still, being brilliant, studious, and uninterested in sports was disastrous to one's reputation among peers. In other words, the teenagers were saying, in effect, that it's okay to earn the highest marks at school provided you don't show too much effort in climbing to the top and provided you have a share in America's love affair with sports. Conversely, if sports is not your bag, but studying hard and handing in homework on time are, then it is much better to have a reputation for being average than brilliant at school

Did such attitudes affect students' academic performance? Coleman's (1962) study indicated that it did. He asked a group of teen-age boys, "How would you most like to be remembered in school: as an athletic star, a brilliant student, or most popular?" (Girls were given a similar chore, except that "leader of extracurricular activities" replaced "athletic star" as one of the three options.) Both the boys and girls ranked "brilliant student" lowest by a wide margin among their respective trio of choices. More important, Coleman ranked several schools according to the proportion of students preferring to be remembered as "brilliant." In those schools where the percentage was lowest, the highest IQ students were least likely to earn a listing on the Honor Rolls. Evidently, the negative feelings about being brilliant were so strong in these educational settings that students who had it in them to excel scholastically chose to hide their lights under a bushel. What became abundantly clear, then, was the fact that adolescents' attitudes in such matters are not just idle moods but powerful

influences on their peers' success at school.

Unfortunately, the attitudes expressed toward academic brilliance more than 20 years ago seem to persist even in the 1980s! Cramond and Martin (1985) report a replication of the Tannenbaum study, using the same instruments and data collection methods. But there was an important difference: instead of eliciting reactions from high school students, they canvassed pre- and in-service teachers. Their results turned out to be almost identical to those obtained by Tannenbaum so many years ago! After so much investment of effort, money, and hope in public education over the past three decades, schools are still unable to create an atmosphere that encourages the brightest students to excel at what they can do best. Some bad news seems *never* to go away.

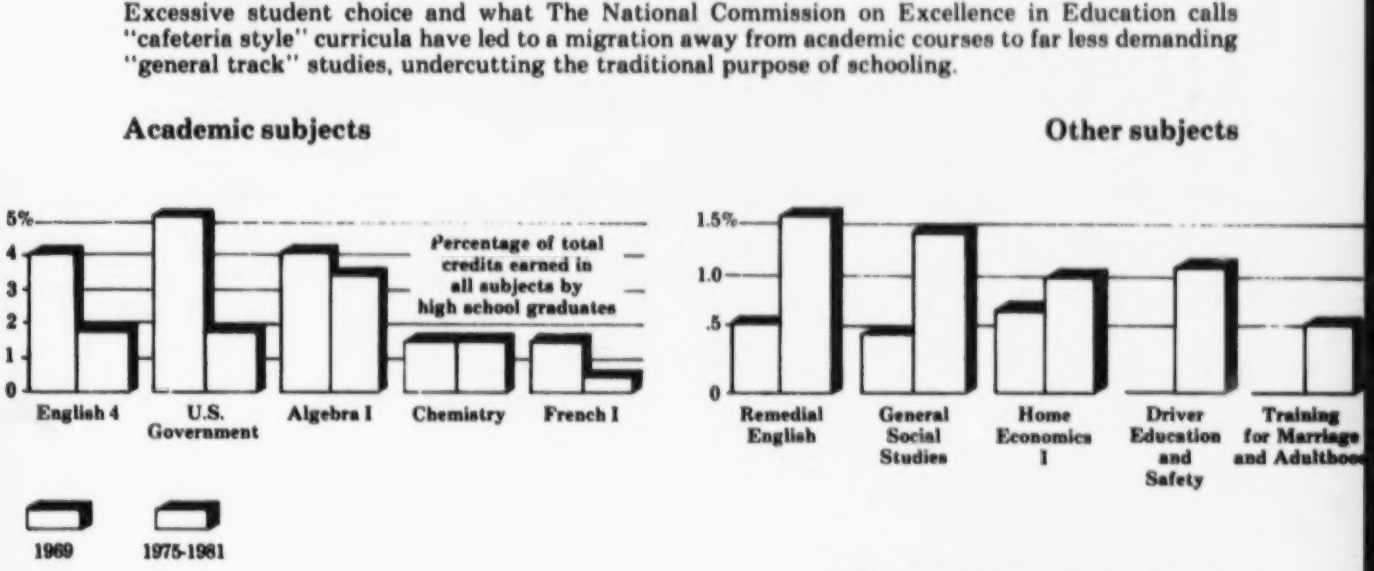
The Risky Business of Education

And then, of course, it is impossible to expose the dark side of education for the gifted without revealing the dark side of education for *all* children. The much heralded 1983 report, *A Nation at Risk*, by The National Commission on Excellence in Education, takes dead aim at public schools for allowing the quality of their programs to deteriorate. It bluntly warns that "a tide of mediocrity" has overwhelmed education in this country and this amounts to "committing an act of unthinking, unilateral, educational disarmament."

Among the report's charges is that, in addition to the pathetic quality of teaching in general, there has also been a desperate shortage of science and math teachers in nearly every state in the union. Small wonder that only one year of science and of math were required for a high school diploma in as many as 70 percent of the states in 1983. The status of foreign language requirements was even worse, in that *no* state included them as prescribed offerings at the time that the report was written. In addition, an alarming 20 percent of all state colleges have been obligated to admit *any* applicant with only a high school diploma, regardless of other qualifications or the lack thereof. Those who are allowed to graduate from a high school program usually do so after being fed an educational diet that leaves them dangerously undernourished. Their schools simply allow them to abandon rich academic and vocational courses in favor of educational pap that is easy to digest, but lacks the nutrients to strengthen the mind (See Figure A below). The result is that American high school students rank lowest among their counterparts in modern industrialized nations.

TAKING THE EASY COURSE: THE SHIFT AWAY FROM ACADEMICS

Excessive student choice and what The National Commission on Excellence in Education calls "cafeteria style" curricula have led to a migration away from academic courses to far less demanding "general track" studies, undercutting the traditional purpose of schooling.



Source: The National Commission on Excellence in Education

There can be no doubt that the dismal state of general education, depicted in the 1983 report, comprises education for the gifted too, since these children are also part of a school world where achieving a personal best is not considered a top priority for *any* student, except for the learning handicapped. Since the appearance of *A Nation at Risk* and others of that genre, published soon afterward, there have been attempts in some states to stiffen pre-college educational requirements and to develop nationwide blueprints for reform. However, so far, these efforts to achieve excellence in our schools are strangely insensitive to the special needs of children who personify excellence. One example of such neglect is the College Entrance Examination Board (1985) report, *Excellence in Our Schools*, based on proceedings of a National Forum on Educational Reform conducted in 1984 by more than 20 concerned organizations. Even though this document purports to lay the best possible plans for "making it (i.e., excellence) happen" none of the major lectures, task force reports, or preconference papers addresses itself to differentiated education for the gifted. It is as if plans were afoot to modernize the infantry's preparedness for combat while depriving the high-tech corps of the specialized training they need to do the jobs that only they would be qualified to do.

And Now, The Good News . . .

Despite the bad news revealed in the past few pages, education for the gifted is alive, even well in places, and the life signs are loud and bold. Never before have the presses had to work so fast to crank out so many professional publications on the subject, including a proliferations of textbooks, for an increasing number of college courses being offered to students interested in gifted children and how they are educated. Accompanying this avalanche of words is an increasing flow of monies. Although Federal funds have dried up, and the 1970s Office of the Gifted has been closed for the 1980s, at least, state education departments have more than trebled their budgets for the gifted over the past ten years, and every state in the union features its own coordinator of enrichment programs or contact person dealing with the gifted. Even the private sector is getting into the act, as witness the Richardson Foundation initiatives in Texas and the projected establishment of so-called "high schools of excellence" in New York State as bait to lure high-tech, high tax-paying industries to its territory.

Precisely how our social climate creates sympathies for the gifted is not clear. It does seem ironic that in a period of political conservatism (i.e., the 1980s) there should be so much more support than in the most recent heyday of liberalism (i.e., the 1960s). Logic would dictate a reverse pattern, since the gifted are, by definition, change agents in their fields of study and productivity. In fact, those who excel in the liberal and fine arts have long been notorious for biting the political hands that feed them. Nevertheless, the preservers of the *status quo*, rather than the campaigners for change, seem to be the ones who provide the strongest support. However, as much as the gifted benefit from social forces beyond understanding, far more credit should be given to the initiatives of professional and lay persons. Leaders in the field need to keep reminding themselves of these accomplishments, or else they may lose faith in their power to make a difference in the destinies of gifted children.

Moving and Shaking the Movers and Shakers

Probably because so many people try and fail to make a difference in school policies and practices, vis-a-vis the gifted, special admiration should be expressed for those who succeed at it. Nobody has done it better than Irving Sato and David Jackson. As directors of the Leadership Training Institute (LTI) in the early 1970s, they applied Havelock's (1973) principles for effecting institutional change in their work with state education departments interested in learning about the needs of gifted children. Superficially, their methods seemed fairly simple. They scheduled intensive, week-long retreats, at which state-level teams were given an opportunity to learn about educating gifted children from the LTI staff augmented by other experts in the field. But there was a special twist to this otherwise familiar conference routine. The state teams would be invited to participate at a retreat only if they met two prior conditions: First, they had to commit themselves to producing statewide plans that would eventually be acted on by their respective legislatures; second, their membership had to include individuals with enough political clout to influence public policy. In other words, the sessions were designed to be product-oriented, rather than interludes for work and play, where people too often exchange professional bromides along with personal pleasantries.

The Havelock theory worked successfully in practice, and the gifted are still benefiting from LTI accomplishments. Sooner or later, every state in the union participated in the intensive seminars and wrote policy statements that they deemed workable in their respective settings. These documents were acted on by legislative bodies and, in some form or another, became the cornerstones for statewide practice, including the appointment of program coordinators, the stimulation and support of enrichment programs, and the certification of specialist teachers. In fact, many of today's statewide commitments to special education for the gifted stem directly or indirectly from the efforts of LTI in the early 1970s. It proves that professionals *can* make a difference, and that the way policymakers think and behave can be felt for a long time if change agentry is practiced with the kinds of skill that few people have.

Infusing The Field With New Leadership

When the Federal Office of the Gifted supported LTI's work with state departments of education, it did so in the hope that grass roots activity on behalf of the gifted would be long-lived, as indeed it has been. But Washington didn't stop there in its investment in the future; it also saw the need for room at the top. It thereupon supported the cultivation of young leaders who would work alongside well-known veterans and eventually replace them as gurus in the field. How to accomplish such a search-and-nurture operation became clear rather quickly. Teachers College, Columbia University was invited to lead a group of universities, including Connecticut, Georgia, Kansas, Purdue, South Florida, and Virginia, in what became known as the Graduate Leadership Education Project (GLEP). This was a nationwide effort to recruit the most promising future leaders and to offer them advanced graduate studies at any of the aforementioned institutions they chose.

Some 50 Fellows were admitted into GLEP in the four-year period of its existence and are now into their professional careers. Their accomplishments are living proof that Washington's long-term investment in young leadership is paying off along with its support of grassroots activity. Nearly all of them are engaged either in research, administration, college teaching, or curriculum leadership, all pertaining to the gifted. Some have national visibility due to their publications, public presentations, and offices held in national organizations. Others are assuming leadership roles at local levels, either in state and city departments of education, in independent community projects, or in school buildings. All of them constitute a cadre of career-committed specialists who will keep services to gifted children active and imaginative for years to come.

It is time, therefore, to reflect with appreciation on the critical importance of the Office of the Gifted in the 1970s in propelling its influence into the 1980s through its sponsorship of projects like LTI and GLEP. Consider, then, how much more programmatic initiative it might have spawned for the 1990s had it been allowed to stay in business in the 1980s.

Amateurs Prod the Professionals

Until the mid-1970s, or so, the gifted had no powerful groups to argue their cause. The only ones showing any interest were academics, and they are pathetically weak in affecting educational policy. College faculties practice intellectual incestuousness, intercoursing with each other in the realm of ideas, while the rest of the world hardly knows or cares what these ideas are. Professional books and papers are read by colleagues and students who also constitute the audience for professional lectures. It is not only hard to break into this circle to venture outside and to spread their influence among those involved in public action. Small wonder that library shelves are loaded with cogent publications on what can (and ought to) be done for gifted children at school in order to help maximize human potential, and the messages hardly ever get off the shelves to sway opinion in the community.

For their part, school staffs assume a reactive, rather than proactive, stance in providing special services to the gifted. Either because they fear that fostering excellence means compromising egalitarianism, or they are content to settle for the norm as their golden mean, or ideal, in school achievement, they don't feel an inner compulsion to challenge the ablest to the limits of their abilities. In the absence of motivation from within, pressure had to come from the outside. But the outside consists mainly of outsiders in the sense that they are not certified as practitioners in the educational establishment. In other words, they lack credentials for "membership in the lodge." College professors are also considered outsiders in this sense, even if they come down from their ivory towers with offers to help plan curriculum enrichment.

Since professionals are so often indecisive or ineffectual in rousing support for differentiated education, the advocacy role has to be filled by non-professionals, or not at all. Indeed, in recent years, lay groups espousing such aims have organized themselves for the first time in memory. They consist mainly, although by no means exclusively, of parents who are convinced their offspring are being understimulated at school and that nothing will be done to make amends unless they pound on appropriate doors and tables to call attention to their concerns. The so-called Advocates for Gifted and Talented Education (AGATE) demand action *now*, not eventually or even a bit later, mainly because so many of their members are helplessly witnessing their own children mark time in class until graduation can liberate them from a most forgettable school experience. Many AGATE members drop out of the organization once their children graduate to a higher school, thus forcing con-

tinual turnovers in leadership and renewals of advocacy campaigns. But the mere existence of these groups has prevented otherwise indifferent school boards, administrators, and legislators from neglecting the gifted altogether

Blueprints Replace Blunderbuss Plans

Aside from the motivation to do something for the gifted, that comes from within and from without the educational establishment, there are also signs of more systematic planning of curriculum. One of the more encouraging trends along such lines is the emergence of conceptual frameworks for curriculum development aimed at replacing the usual ad hoc, add-on enrichment offerings at school. It is by no means a megatrend since the overwhelming majority of children with extraordinary potential have never been exposed to *special* classroom experiences designed to stretch their minds as far as reasonably possible And the fortunate few who benefit from such exposure often have to settle for a patchwork of off-beat activities, put together haphazardly, that amount to curriculum ornaments rather than staples.

Many so-called "enrichment" exercises consist of nothing more than brain twisters, intellect teasers, conundrums, and puzzles that may be attractive to anybody whose mind craves such intoxication. But the effect is that of a quick fix, satisfying for the moment or even exciting for as long as the supply lasts, while the complex needs and capacities of the gifted child remain largely ignored.

The only viable alternative is the creation of instructional models for the gifted, which enable educators to follow guidelines rather than "by-the-seat-of-the-pants" inclinations in planning enrichment for children they consider able and ambitious. Nowadays, school officials throughout the country are at least *talking* about the Feldhusen elementary and secondary school models, Parnes' Creative Problem Solving, Renzulli's Enrichment Triad, Tannenbaum's Enrichment Matrix, Taylor's Multiple Talent Approach, Williams' Teaching Strategies for Thinking and Feeling, among a sizable number of models available to curriculum planners. Some schools have actually put these paradigms to work for them, with positive reactions from their staffs. One of the most important advantages of such an approach is that it engenders long-range planning and an enormous investment of inventiveness in the planning process. What better way to put an end to the blunderbuss, scattershot activity on behalf of the gifted in favor of organized planning that is based on some kind of theory of giftedness.

Enrichment On The Fast Track

"Enrichment" is a generic term that refers to *any* special intervention on behalf of the gifted, *including* acceleration through conventional subject matter. The two concepts should therefore not be counterposed, as if they were mutually antithetical; instead, one should be subsumed under the other. The reason for this approach is more than simply to keep peace in the family by avoiding debate on the relative merits of each. Whatever challenges the gifted appropriately and to the limits of their abilities deserves support. For some children, and for some subject matter, fast-paced insruction is most appropriate. Under other circumstances, much can be said for supplemental content that adds dimension to the conventional curriculum.

Of all the forms of enrichment, acceleration is easiest to evaluate, and for good reason. All that has to be done is to measure mastery of subject matter content offered at higher grade levels, and usually such assessment is possible by comparing the accelerate's grade point average with that of older classmates or by determining how well the accelerates perform on more advanced forms of standardized achievement tests. On the other hand, the effect of lateral enrichment, as for example, when a school decides to teach Sanskrit to potential linguists in the fifth grade, is far more difficult to assess.

How, indeed, can the impact be measured in a controlled evaluation? By comparing achievement in Sanskrit between children who have studied it versus children who have had no such exposure? Small wonder, then, that so much of the enrichment research focuses on acceleration, and at every grade level, too, including preschool, elementary, junior, and senior high school, and also at college (cf. George, Cohn & Stanley, 1979). The results of these studies have been overwhelmingly consistent in favor of rapid advancement at any time during the rapid learner's at school. Yet, acceleration has traditionally been *least* favored among the enrichment options open to practitioners. Despite the weight of empirical evidence, school administrators in particular have found fault with the process for

a variety of reasons, many involving hidden agendas about the desirability of preventing the gifted from graduating early in order that their achievement records may reflect glowingly on the quality of their school.

It wasn't until the 1970s when resistance to acceleration began to break down, thanks to the efforts of Julian C. Stanley and his Johns Hopkins Study of Mathematically Precocious Youth (SMPY). The work he initiated in 1971 has spread to nearly every corner of the country, with more and more school systems subscribing to his ideas about fast-paced instruction for junior high school-age children who can succeed at it. By now, large numbers of young adolescents are taking the SAT's in hopes of being placed in any of a number of settings, such as afternoon and summer classes and even in college courses that offer advanced study.

SAT testing and straight-out acceleration, as the *only* means of enrichment for the mathematically precocious, may be a trifle limiting for some of the gifted. Do *all* adult creative mathematicians have early histories of achieving far beyond their years in algebra, geometry, and trigonometry? Is it possible that a few were not particularly rapid learners in junior high school, but had the capacity to deal with mathematical logic in ways that SAT scores do not reflect? These questions aside, SMPY is having a salutary and significant impact on the field, if for no other reason than the fact that it is perhaps the only form of enrichment that comes close to sweeping the country. And, *any* enrichment on such a wide scale is far better than hardly any or none at all.

A Much-Needed Bill of Rights for the Gifted

A review of past ecstasies and agonies about educating the gifted in the United States makes it fairly clear that the succession of tall peaks and deep valleys of concern for this sub-population in our schools is behind us for the time being. The terrain has leveled off to some extent in the present decade, or at least it appears that way. Although it is probably impossible to revive the frenzied talent hunts of the post-*Sputnik* era — even if it were wholly desirable to do so — the public fears of elitism that plagued the 1960s seem to have been largely pacified by now. Perhaps the best way to view today's "topography" is from above, where peaks and valleys exist side-by-side, rather than in profile, where they seem to follow one another. This would suggest that the ecstasies and agonies coexist for now and for the foreseeable future, and they moderate each other's impact on services to the gifted.

But if there is hope that we will ever devote all-out efforts to differentiate curricula at *all* ability levels, there has to be a clear distinction made between equality and sameness of education in our schools. This means recognizing the rights of potentially gifted children, no less than the non-gifted, to be treated in a manner that is uniquely fair to them. True, the idea of being "fair" to the gifted may strike some as a strange plea to help top-dogs as ardently as underdogs. Even well-meaning people may be reluctant to articulate "rights" for individuals whose superior mental endowment already gives them a coveted edge over their peers. In this case, "rights" can easily be misread as "privileges" conceived to encourage elitism by heaping favor upon the advantages of being gifted. It is therefore necessary to state, as a preamble, that *all* children deserve to be challenged to the limits of their abilities, thus denying any minority or even majority preferential treatment at school.

A corollary would be that quality education for the non-gifted is a precondition of enrichment for the gifted, although not a substitute for it. What is necessary and sufficient for the non-gifted is necessary but *insufficient* for the gifted, who need more and different learning experiences commensurate with their potentialities. The proposed Bill of Rights calls attention to the gifted and to what qualifies as quality education for them.

1. *Children have a right to be identified as gifted at the earliest possible age.*

A disproportionately large number of children who show precocity even in the earliest years of life can go on to make outstanding contributions to the world of ideas as adults, provided they have opportunities to cultivate their high potential through an enriched education. Early promise and later productivity or performance are linked in the form of a complex web rather than a simple chain, and some of the filigrees of that web are spun at school. Given the right education, many of these children will grow up to be great patrons of our cultural heritage. Some will accomplish even more than that; they will make their own lasting contributions to that heritage and thereby enrich the lives of their generation and of succeeding generations as well.

2. *Children have a right to be identified as gifted long before they are able to achieve renown.*

The difference between gifted children and gifted adults is in the realm of productivity and performance as judged by universal rather than childhood standards. Gifted adults can be recognized by the quality of their contributions to the arts, sciences, and the human condition; children are too young to compete for such recognition. Under the best of circumstances, they reveal an extraordinary measure of precocity, which is a good, though far from perfect, precursor of later accomplishment. In other words, we can only *infer* eventual fulfillment from early promise, and the connections are difficult to control. But this limitation should not deter schools from making the attempt to identify signs of giftedness in young children. The promise is there, even if it is difficult to discern.

Since identifying giftedness in our schools is far from foolproof, we have to rely on educated guesswork in our search for signs of it. Those who seem to show these signs should be educated in such a way as to make sure that no one is denied the encouragement and opportunity to excel. Unfortunately, however, only a few of those who have what it takes to reach the top actually do so; sometime in the course of their development they are either distracted or discouraged from fulfilling their potentialities.

3. *Gifted children have a right to be regarded as precious human resources far out of proportion to their numbers.*

A single gifted child may have the potential to shake the world. Let us think of the example of Dr. Jonas Salk, a beneficiary of special programs for the gifted in his early school years. Can we fault the schools he attended for failing to produce masses of eminent people who could accomplish as much

as he? Rather, should we not ask ourselves whether the potential Jonas Salk in cancer research may be living in obscurity because of educational neglect? There is no doubt that the handful of seminal thinkers whose schooling was enriched appropriately have proven the value of special education for the gifted by virtue of their accomplishments. Thus, while our schools address their efforts to the total student population, they must not be allowed to neglect the unique needs of unique *individuals* in favor of the broader needs of the *masses*. Equality of educational experience was never meant to be a sameness of educational experience for all children. Or, as Paul Brandwein, a gifted educator of the gifted has told his audiences so often, there is nothing more unequal than the equal treatment of unequals.

4. *Gifted children have a right to differentiated education that is especially appropriate for them.*

An enriched program for the gifted is special education, not simply an embellishment of education for all children. It does not mean doing more of the same thing everybody does in the classroom. Instead, the gifted require exposure to content and basic skills that will enable them to make original contributions in their fields of excellence. Since we expect them to become producers of ideas, they should have the kind of training that is particularly beneficial to potential producers.

The child who shows promise as a concert artist or ballet virtuoso needs to have a training regimen that is basically different in content and in intensity from that of the student who is developing these skills just for self-enrichment. The same kind of differentiated training is applicable to the potential professional athlete versus sandlot athlete and also holds true for the playwright versus playgoer, the historian versus Civil War buff, and the scientist versus reader of science.

If we truly believe in individualized education, then we have to vary our educational objectives and programs to accommodate individual differences. For the trainable mental retardate, the aim of education may be to develop self-care and self-help skills, which are not contained in the curriculum of so-called normal children. The gifted also have their own special learning capacities that have to be honored. The national mean in educational accomplishment should never become our national ideal. If it does, then the handicapped will receive help to live up to that standard, while the gifted will be neglected because they can live up to it without any special help.

5. *Gifted children have a right to the kind of education that is the forerunner of education for all children.*

Education of the gifted is a vital cutting edge of innovative programs for the non-gifted. What is enrichment today can, with adaptation, become general practice for tomorrow. In planning special educational experiences for our ablest, it is necessary to conjure up new and meaningful courses of study, new and meaningful out-of-school experiences, new and meaningful encounters with cultural resources, and new and meaningful attempts at creative productivity. When such programs are initiated, they inevitably stimulate educators to consider aspects of them for the general curriculum. Thus, if our elementary and secondary schools ever seriously consider studies of ecology, geopolitics, cultural anthropology, intergroup relations, and human psychology as possible areas of concentration that can benefit all children, the breakthrough will come when these disciplines are introduced to the gifted. That has been an historical pattern of curriculum revision in our schools. The so-called new mathematics started with the gifted and was later adapted for all children. The same is true for current curricula in science, social studies, and language arts.

Special education should, therefore, be recognized for its pioneering efforts in two ways: (1) special program *content* for the gifted influences the general program content and (2) special program *methodology* for the handicapped influences general educational methodology. We mistakenly think that the gifted are the only beneficiaries of our efforts on their behalf. For that reason, we worry about educational elitism and snobbery. Actually, whatever we do to benefit the gifted can and should spread to benefit every child.

6. *Gifted children have a right to be educated by teachers who are specially qualified to teach them.*

Gifted children require inspiring teachers with special competencies in curriculum enrichment. The teacher cannot succeed fully by simply being a "learning manager" who directs children to source material but is uninformed in any field of inquiry. A know-nothing classroom technician will have only limited influence on the gifted, who need a role model they can emulate in their own quest for new ideas. This does not mean that the teacher has to be as clever or knowledgeable as the gifted in a variety of disciplines. In fact, no teacher can know as much as an aggregate of gifted children in a classroom, whose interests are highly diversified and advanced.

Nevertheless, teachers should communicate the feeling that they possess some active enthusiasm for cultural pursuits for two reasons: first, to be a living example of an educated person

whom children can emulate and, second, to be a source of inspiration in a particular realm of ideas. Thus, by becoming extremely informed about cybernetics or Mahler's music or Yeats' poetry, they should share their understandings of these cultural legacies with children who may develop similar motivation to pursue their own interests or even those of their teachers. But serving as a role model is not enough. A teacher of the gifted should also understand the nature of giftedness, the objectives necessary for an enriched educational program, and the special methodology appropriate for implementing such a program. Education of the gifted is indeed a subspecialization of general education that deserves its visibility and public support.

7. *Gifted children have a right to a formal education that originates in the total environment.*

The gifted child needs opportunities to encounter gifted adults at their professional sites that contain the materials and atmosphere for productive work. Career education has a special meaning for the gifted since it allows opportunities for apprenticeships at leadership levels. By seeking out special training resources outside of school during hours that accommodate the schedules of mentors, educators can broaden the gifted child's learning experiences in ways that the school is not equipped to provide. Nevertheless, the child should not be "farmed out" in an apprenticeship without establishing close cooperative relationships between the school and the community agency, research laboratory, art studio, or professional center where the field training takes place.

Educators should retain a strong influence over the child's learning experiences, even if these opportunities are located away from the school building, scheduled after or before school hours, and supervised by mentors who do not belong to the teaching profession. For, in the last analysis, educators are the ones who know the gifted child's needs best.

8. *Gifted children have a right to be nurtured in a school program, not just through school provisions.*

A program is an educational imperative, not an elective; it is essential, not luxurious. Thus, while schools plan programs in the major disciplines for all children, they are less serious about the needs of the gifted and offer them only temporary provisions that are basically extracurricular. Programs are everlasting, although they can undergo revision, whereas provisions survive only at the pleasure of the teachers who design and implement them. Education for the gifted can be truly meaningful only if schools make it programmatic, thereby incorporating it into the mainstream of individualized education for every child.

9. *Gifted children have a right to their own individualities.*

The gifted vary in talent, enthusiasm, and domains of interest. Enrichment means offering school experiences that address these individualities. Schools should take stock of the kinds of talents they are equipped to cultivate and should begin their efforts within the limits of reality. It is useless to seek out children who are talented in the dance or in social leadership unless there are programs to educate these children at their levels of advancement. Schools should begin where their educational resources are strongest, but they should not end there. An expansion of offerings has to be a persistent possibility, not only because gifted children are so varied in their skills and curiosities, but also because the world of ideas is changing and new disciplines deserve attention especially from those who are equipped to contribute to these realms of knowledge.

10. *Gifted children have a right to social equality and freedom from harassment.*

A climate of social acceptance has to be created at school and in the community so that the gifted will want to realize their potential rather than suppress their exceptionalities. There is evidence to show that the gifted are influenced by their peers', parents', and teachers' feelings about their abilities. If they are seen as mental freaks, unhealthy personalities, or eccentrics simply because they are brainy or creative, many of them will avoid the stigma through conformity. Some would rather underachieve and be popular than achieve honor status and risk social ostracism.

It is not easy to make the school a place where the gifted want to excel. It requires real staff commitment to the purposes and benefits of special education for our ablest children and hard work to actualize these commitments through special programs that are exciting and meaningful. A school climate that fosters excellence is infectious. It influences the total substance and conduct of education, thereby reinforcing the idea that designing enriched programs for the gifted are essential steps toward our goals of individualizing quality education and indeed of honoring the individualities of *all* children.

Summary

Going back to the title question, "The Gifted Movement: Forward or on a Treadmill?", the answer would have to be "Yes to both." There are signs of enthusiastic innovation and progress, along with mere action for action's sake, both kinds of movement visible against a larger background of inertia and indifference. A constant change of educational tactics does not always imply advancement, as if new were necessarily better; many schools can serve the gifted well by maintaining special programs that have existed for a while, provided these offerings be first-rate and constantly subject to scrutiny and possible refinement. The problem in judging genuine efforts on behalf of the gifted is that the field has been so devoid of activity of any kind in so many regions of the country that *any* initiative to serve this minority seems like a significant forward step.

The treadmill aspects of the gifted movement come into play when educators are roused out of their sluggishness vis-a-vis the gifted — usually by outside pressures, rather than by inner convictions — to "do something" for these children, and they go through the motions half-heartedly, while clinging to old platitudes and prejudices about the nature and nurture of giftedness. In order to aim such activity in a forward direction, it is necessary that school and community absorb a "Bill of Rights" for the gifted deeply into their belief system. There has to be a clear understanding of *who* is the target population, *what* are its special needs, and *how* can these needs be met through differentiated education, before real progress can be made. Otherwise, we will continue indefinitely to face peaks and valleys of public interest, be they from aerial or from ground-level perspectives.

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